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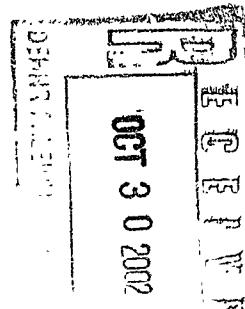
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**GROUNDWATER MONITORING REPORT**  
**September 2002 Sampling Event**  
**Former Nello Teer Quarry**  
**5013 Denfield Street**  
**Durham, North Carolina**

Prepared for:  
**Hanson Aggregates**  
**2300 Gateway Centre Blvd.**  
**Morrisville, North Carolina 27560**



Prepared by:  
**Quantum Environmental, Inc.**  
**6001 Chapel Hill Road, Suite 108**  
**Raleigh, NC 27607**

October 2002

Quantum Project No. 013-94-012

Quantum

# Quantum Environmental, Inc.

October 25, 2002

Mr. Mark Powers  
North Carolina Department of Environment and Natural Resources  
Raleigh Regional Office  
1628 Mail Service Center  
Raleigh, N.C. 27699-1628

Re: Nello Teer Quarry, Denfield Street, Durham, NC  
Semi-Annual Groundwater Monitoring Report Submittal  
Groundwater Incident No. 9357

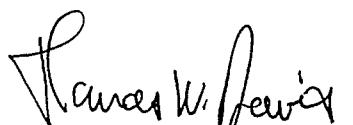
Dear Mr. Powers:

On behalf of Hanson Aggregates, Quantum Environmental, Inc. (Quantum) is submitting the enclosed semi-annual groundwater monitoring report for the above-referenced groundwater incident. This report documents the groundwater conditions at the site in September 2002.

If you have any questions regarding the enclosed report please contact me at (919) 852-3595.

Sincerely,

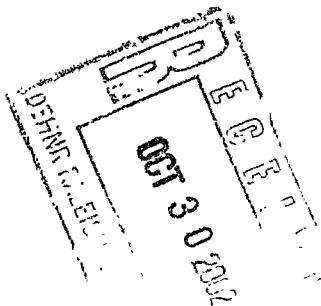
**QUANTUM ENVIRONMENTAL, INC.**



Thomas W. Davis, L.G.  
Project Hydrogeologist

L02-260

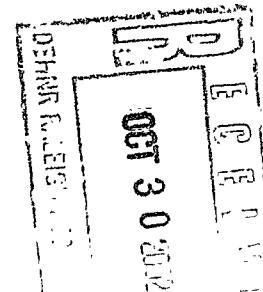
cc: Mr. Steve Edgerton, L.G., Hanson Aggregates  
Mr. Eric Rice, DENR, Groundwater Section, RRO



## Semi-Annual Groundwater Monitoring Report

Nello Teer Quarry  
5013 Denfield Street  
Durham, North Carolina  
Durham County  
Groundwater Incident #9357

**Date of Report:** October 25, 2002



**Site Priority Ranking:** 110B

**Responsible Party:** Nello Teer Company  
5013 Denfield Street  
Durham, NC 27560  
(919) 477-2413

**Current Owner:** Hanson Aggregates  
2300 Gateway Centre  
Morrisville, NC 27560  
(919) 380-2600

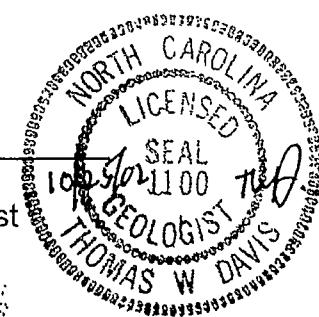
**Consultant:** Quantum Environmental, Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

### Release Information:

The soil and groundwater contamination by petroleum hydrocarbons appears to have originated from gasoline, diesel, and waste oil underground storage tanks (USTs) located at a former gas station on-site with multiple UST nests. Additional groundwater contamination, by chlorinated hydrocarbons, appears to have originated from an asphalt testing laboratory formerly operated by the North Carolina Department of Transportation (NCDOT).

**Latitude:** 36° 3.45' North      **Longitude:** 78° 53.10' West

  
Thomas Davis, L.G.  
Project Hydrogeologist



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## 1.0 Background

On September 12, 2002, Quantum Environmental, Inc. (Quantum) personnel conducted groundwater-sampling activities from selected monitoring wells at the former Nello Teer (Teer) Quarry yard in Durham, North Carolina. This was done in accordance with the active remediation Corrective Action Plan (CAP) submitted to the North Carolina Department of Environment, Health and Natural Resources (DEHNR), Raleigh Regional Office in 1995. This report presents the sampling methodologies, groundwater flow directions, current extent of contamination, analytical results provided by Environmental Science Corporation (ESC), and recommendations. Recovery wells were also sampled during this event to better define the contaminant plumes and assess the progress of the site cleanup.

### 1.1 *Site Location and History*

The Nello Teer Quarry is an inactive aggregate mining and processing facility located on Denfield Street (State Road 1641) in Durham County, North Carolina (Figure 1). The property had been in operation as a crushed stone quarry and asphalt plant since the 1940s; however, at this time it is used for aggregate staging and equipment maintenance only, with no active mining operations occurring. Groundwater contamination found in a water supply well designated W-1 prompted the issuance of a Notice of Violation from the North Carolina Division of Environmental Management (NCDEM) under the North Carolina Groundwater Standards (15 NCAC 2L) in November, 1993.

The soil and groundwater contamination by petroleum hydrocarbons appears to have originated from gasoline, diesel, and waste oil underground storage tanks (USTs) located at a former gasoline station on-site (multiple UST nests). Additional groundwater contamination, by chlorinated hydrocarbons, appears to have originated from an asphalt-testing laboratory formerly operated by the North Carolina Department of Transportation (NCDOT). A Comprehensive Site Assessment Report, submitted by Geogenetics, Inc. in 1993 apparently indicated a large volume of contaminated soil existed at the site; however, many of Geogenetics' conclusions were based on field organic vapor analyzer results only and were not confirmed with laboratory analysis of soil samples.

Quantum submitted a revised Corrective Action Plan (CAP) for soil and groundwater remediation along with applications for a permit to land apply hydrocarbon-contaminated soils and a discharge permit (NPDES) for treated groundwater. The permits were both issued and the land application of contaminated soil was completed in 1997. Quantum completed construction and started the groundwater remediation system in October 1997. To date over 11 million gallons of groundwater have been recovered and successfully treated by this remediation system.

Five monitoring wells for the shallow (water table) aquifer and ten monitoring wells for the deep (semi-confined) aquifer are present at the site. A new monitoring well, MW-28D, was

September 2002 Compliance Monitoring Event  
Hanson Aggregates  
Nello Teer Quarry

installed in late September 2002 to a depth of 90 feet in the vicinity of MW-25. In addition, there are nine recovery wells at the site. Four recovery wells are located near the old gasoline station on the southern portion of the site (RW-2, 3, 4 and 8), four are located at the site of the old asphalt plant on the northern portion of the site (RW-5, 6, 7, and 9), and one deep recovery well is located between the two source areas (RW-1). A Well Location Map is presented as Figure 2. All of the monitoring and recovery wells except RW-6 were sampled during this event. RW-6 was not sampled because it is currently not in operation.

## **2.0 Groundwater Sampling Methodology**

Prior to collecting groundwater samples, water levels were measured in all monitoring wells using an electronic water level meter. The expansion plugs were removed from each well and enough time was allowed before collecting the measurements to permit the water level in the monitoring wells to equilibrate with the ambient atmospheric pressure. The measurements were collected to an accuracy of 0.01 feet and recorded in the field logbook.

In order to prevent cross-contamination between wells, Quantum personnel donned new, clean, non-reactive gloves prior to measuring each well. The electronic water level meter probe and tape were decontaminated following EPA protocol prior to collecting measurements from each well. Water level data from all wells gauged are presented in Table 1.

All monitoring wells sampled were purged by removing at least three well volumes of groundwater, or until the wells went dry, using new disposable bailers and new nylon rope. MW-20D was purged and sampled using a cleaned Grundfos RediFlo 2 pump and new tubing. After allowing groundwater levels to equilibrate to or near static water levels after purging, water samples were collected from the following wells:

Shallow: MW-7, MW-17, MW-18, MW-25 and MW-26  
Recovery wells RW-5 and RW-7

Deep: MW-1, MW-9, MW-11, MW-13, MW-15I, MW-20D, MW-23 and MW-28D  
Recovery wells RW-1, RW-2, RW-3, RW-4, RW-8 and RW-9

The samples were placed in labeled, laboratory prepared containers, stored on ice in a cooler, and transported under Chain of Custody to ESC, a North Carolina certified laboratory. The samples were submitted for analysis using EPA Methods 601, 602 and 610. Not all methods were used to analyze samples from all monitoring wells. Analytical methods selected for each sample were based on a review of historical sampling results as well as the location of the monitoring well. A copy of the Chain of Custody is included in Appendix A.

### 3.0 Sampling Results

Potentiometric data collected from the monitoring wells indicates that groundwater flow direction for the shallow aquifer is to the southeast with an average hydraulic gradient of 0.05 ft/ft. Water levels were generally lower than during the previous sampling event. The groundwater flow direction for the deep aquifer was determined to be to the northwest, towards the quarry pit, with an average hydraulic gradient of 0.025 ft/ft. Table 1 presents a summary of the water level data from the September 2002 sampling event. Figures 3 and 4 present potentiometric surface maps of the shallow and deep aquifers, respectively.

#### 3.1 *Discussion of Sampling Results, Chlorinated VOCs*

Laboratory analytical results from the September 2002 semi-annual sampling event continue to indicate that levels of chlorinated hydrocarbons detected in the groundwater monitoring wells vary across the site. Monitoring wells MW-11 and MW-13 have both experienced steady decreases in chlorinated VOC (CVOC) content since 1995, although both contained only minor concentrations of CVOCs to start. Monitoring wells MW-17 and MW-18 both experienced significant decreases in CVOC content between early 1995 and May 1998, and no CVOCs were detected in either well during this latest sampling event. Deep well MW-20D has had little change in total CVOC content since December 1997. MW-26 experienced a significant decrease in total CVOC content since 1995 and since June 2000 has not contained any CVOC compounds above their respective 2L Standards. Monitoring well MW-25 which has historically contained the greatest concentrations of CVOCs, contained 750.3 µg/l CVOCs in June. .

Similarly, the concentrations of CVOCs in the recovery wells continues to vary across the site. RW-5 has experienced a net decrease in total CVOC and individual CVOC content since 1999. Recovery well RW-7 has not contained any compounds above 2L Standards for the last three sampling events. Recovery well RW-9 has essentially not shown any change in CVOC concentration since installation in May 2000. This well is now operating continuously and should show some changes in CVOC content in the future.

Summaries of the current laboratory analytical results for the shallow and deep aquifers are presented in Tables 2 and Table 3, respectively. Figure 6 is the vinyl chloride isoconcentration map for the shallow aquifer. Figures 7, 8, 9 and 10 show the trichloroethene, 1,1-dichloroethene, 1,2-dichloroethane and 1,1,1-trichloroethane isoconcentration maps, respectively, for the site. Table 4 provides the complete historical monitoring well data from 1993 through the current monitoring period, and Table 5 is a compilation of the analytical results for the recovery wells at the site. Overall, sampling results from the site indicate the gradual decrease in groundwater concentrations. This historic data has been plotted in a series of groundwater concentration versus time graphs illustrating the decrease in groundwater concentrations for representative monitoring wells at the site. These graphs are presented as Appendix B.

### **3.2 Discussion of Sampling Results, Petroleum Hydrocarbons**

Laboratory analytical results from the September 2002 semi-annual sampling event indicate that levels of petroleum hydrocarbons detected in the groundwater monitoring wells have continued to decrease in all wells since the January 2001 sampling event.

MW-20D contains benzene and di-isopropyl ether (DIPE) above State 2L Standards while MW-23 contains only benzene above the 2L Standards. MW-15I continues to show no evidence of petroleum compounds above the State 2L Standards. Recovery well RW-1 has not contained any petroleum compounds above 2L Standards since June 2000. Recovery well RW-2 has not contained any petroleum compounds above 2L Standards since January 2001, and only one compound has been detected above 2L Standards since 1994. Recovery well RW-3 experienced significant change in total petroleum compound content since the last sampling event, with only 1-methylnaphthalene currently present significantly above 2L Standards. Recovery well RW-4 contained no compounds above 2L Standards. Recovery well RW-9 did not contain any petroleum compounds. RW-6 was not sampled as this well is currently not operational and RW-5, RW-6, and RW-7 were not sampled for petroleum compounds.

An isoconcentration map for benzene concentrations in groundwater can be found in Figure 5.

### **4.0 Remedial System Operation Summary**

Operation of the remediation system continued without significant interruption. A variety of scheduled and non-scheduled maintenance items were conducted on the system during the period, including filter replacements (bi-weekly on average), and replacement and troubleshooting of various other remedial system items and components.

### **5.0 Summary and Recommendations**

A continued decrease in petroleum-based groundwater contaminant concentrations (primarily benzene) occurred during the monitoring period. This is undoubtedly due in large part to the operation of the remediation system, but may also be, in part, due to the on-going drought in the Piedmont area.

Chlorinated hydrocarbon concentrations have continued to decrease at the site, but at an unacceptably slow pace. The chlorinated plume appears to be in need of accentuated treatment, and an HRC® injection event has been proposed to deal with the remnant VOC concentrations. Without accentuated treatment, concentrations are not expected to decrease at an acceptable rate. Concentrations of vinyl chloride, and other degradation by-products of the chlorinated compounds present at the site were detected in three

September 2002 Compliance Monitoring Event  
Hanson Aggregates  
Nello Teer Quarry

monitoring wells and three recovery wells above the 2L Standards during the current groundwater-monitoring event.

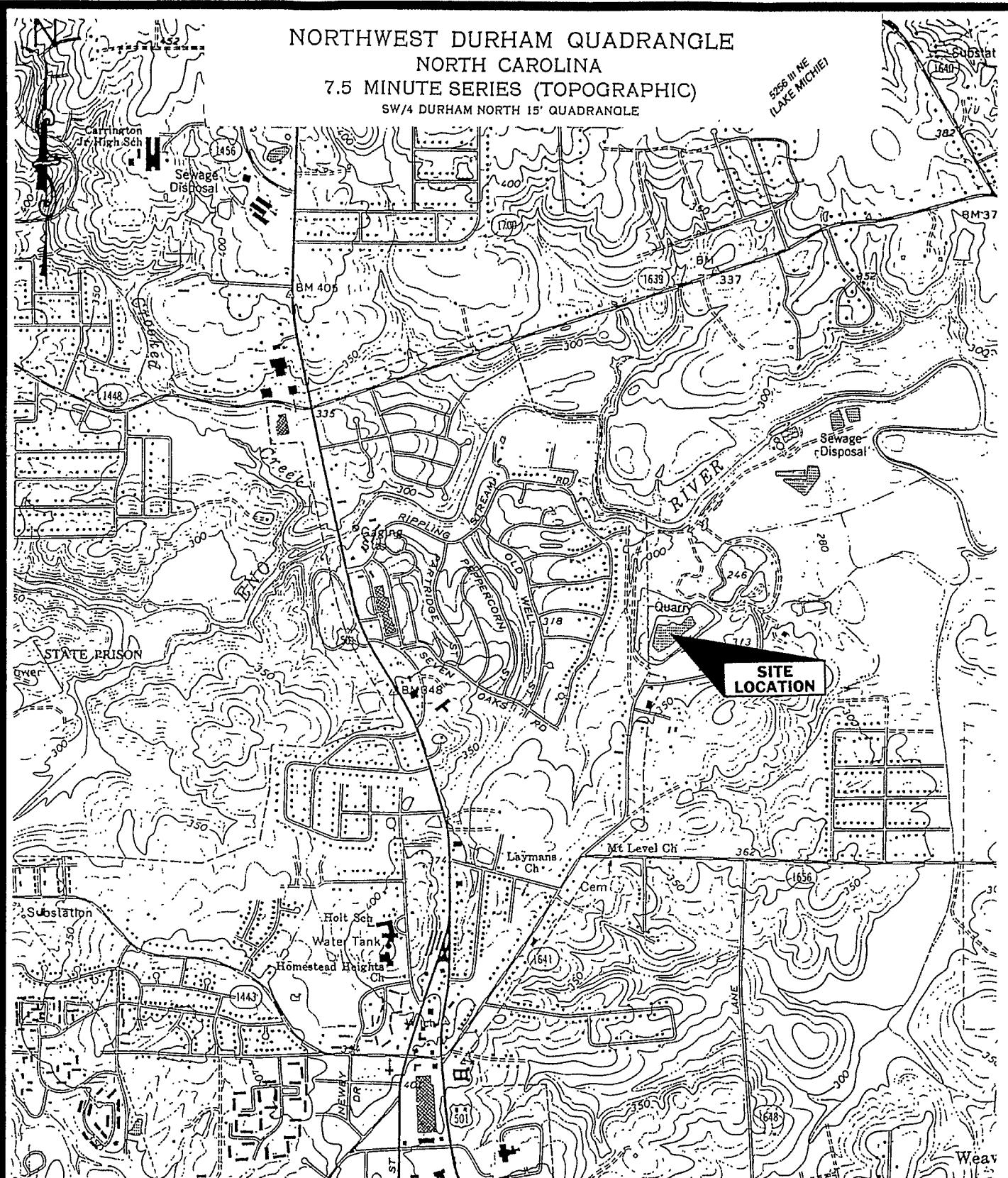
Based on the results of the current semi-annual sampling event, Quantum recommends that operation of the groundwater remediation system continue until concentrations in RW-3 reach or exceed the remedial goal of 12 µg/l benzene for two consecutive events. As groundwater recovery in the shallow portions of the chlorinated plume is low, and the cost of maintenance of the system is fairly high, Quantum believes that HRC® treatment or some other method of remediation of this area will be preferable to bring about the desired reductions in contaminant levels in the chlorinated plume. The current groundwater recovery system is considered inadequate to complete the task of decreasing the levels of chlorinated VOCs. Quantum believes that as the system continues to operate and the contaminated subsurface in the area of the remediation shed is remediated, the petroleum hydrocarbon plume should reach the remedial goal for this area and the system may be deactivated in the petroleum impacted portion of the site. Without additional treatment, Quantum anticipates less contaminant reduction in the chlorinated plume in the future, with a low potential to reach the 2L Standards. Quantum recommends the use of Hydrogen Release Compound HRC® or some other method of treatment in this area to expedite cleanup. Prior to finalizing the HRC® injection, if it is pursued, it is recommended that the full vertical and lateral extent of the chlorinated plume be delineated. At that time the use of HRC® as well as alternative methods of accelerating the remediation of the chlorinated solvents should be evaluated and a decision made concerning the remediation of this plume.

While an amended and more reasonable cleanup goal has been established for the petroleum plume area, no such amended remedial goals exist for the chlorinated contaminant plume area. At the present time, DENR policy mandates that the 2L Standards must be attained in order to reach closure.

Based on the results of the current sampling event in comparison with previous years' data, concentrations of contaminants continue to decrease at the site, as three of the eight operating recovery wells at the site now produce non-detectable to trace levels of contaminants. Quantum anticipates further decreases over time.



## **Figures**



**SITE LOCATION MAP**

Nello Teer Quarry  
 5013 Denfield Street  
 Durham, North Carolina

**Quantum**

Environmental, Inc.

6001 Chapel Hill Road, Suite 108  
 Raleigh, NC 27607  
 (919) 852-3595 (919) 852-1997

**FIGURE 1**

**SCALE: 1" = 2000'**

**Proj. No: 0013-94-012**

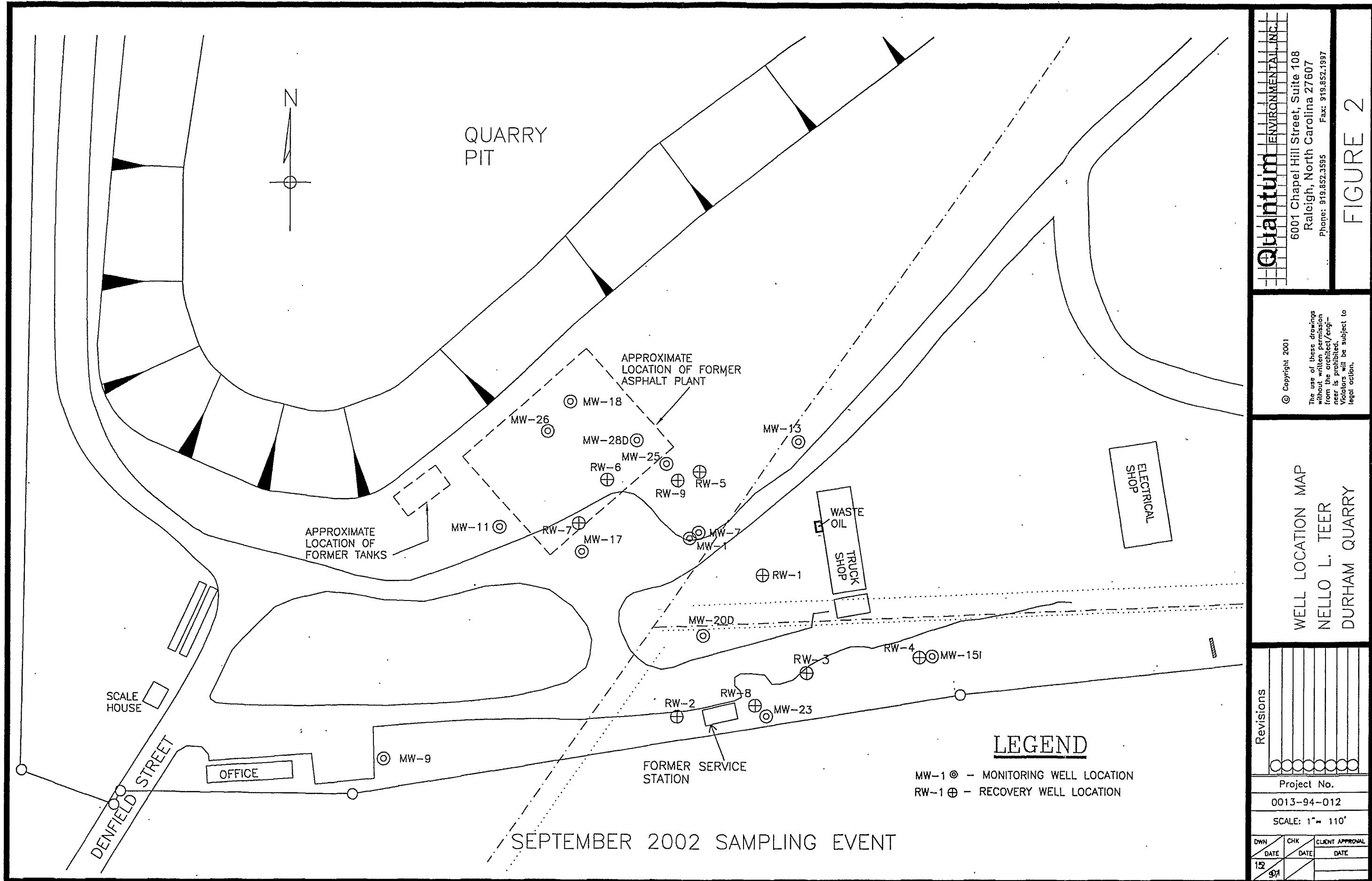
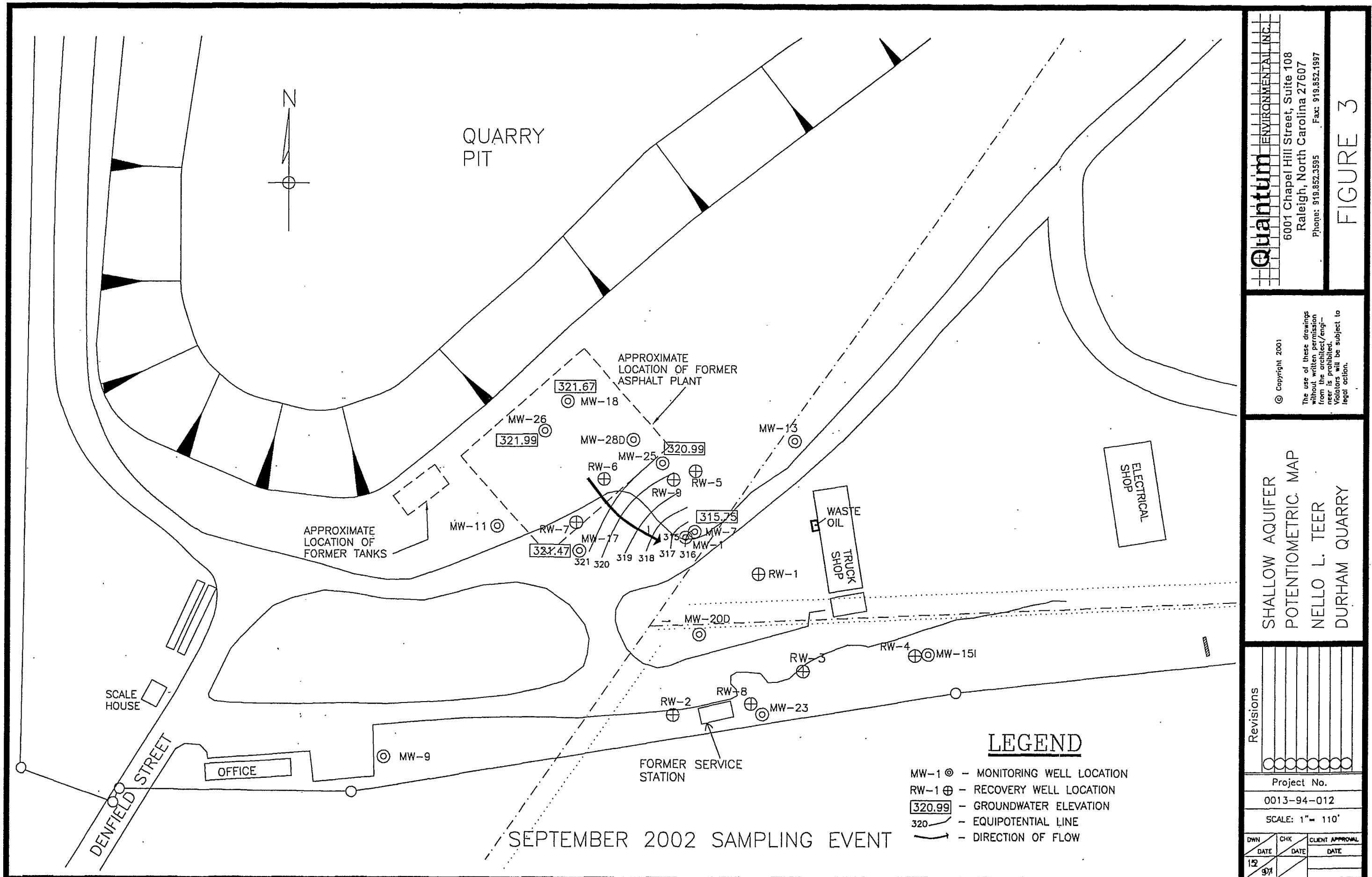
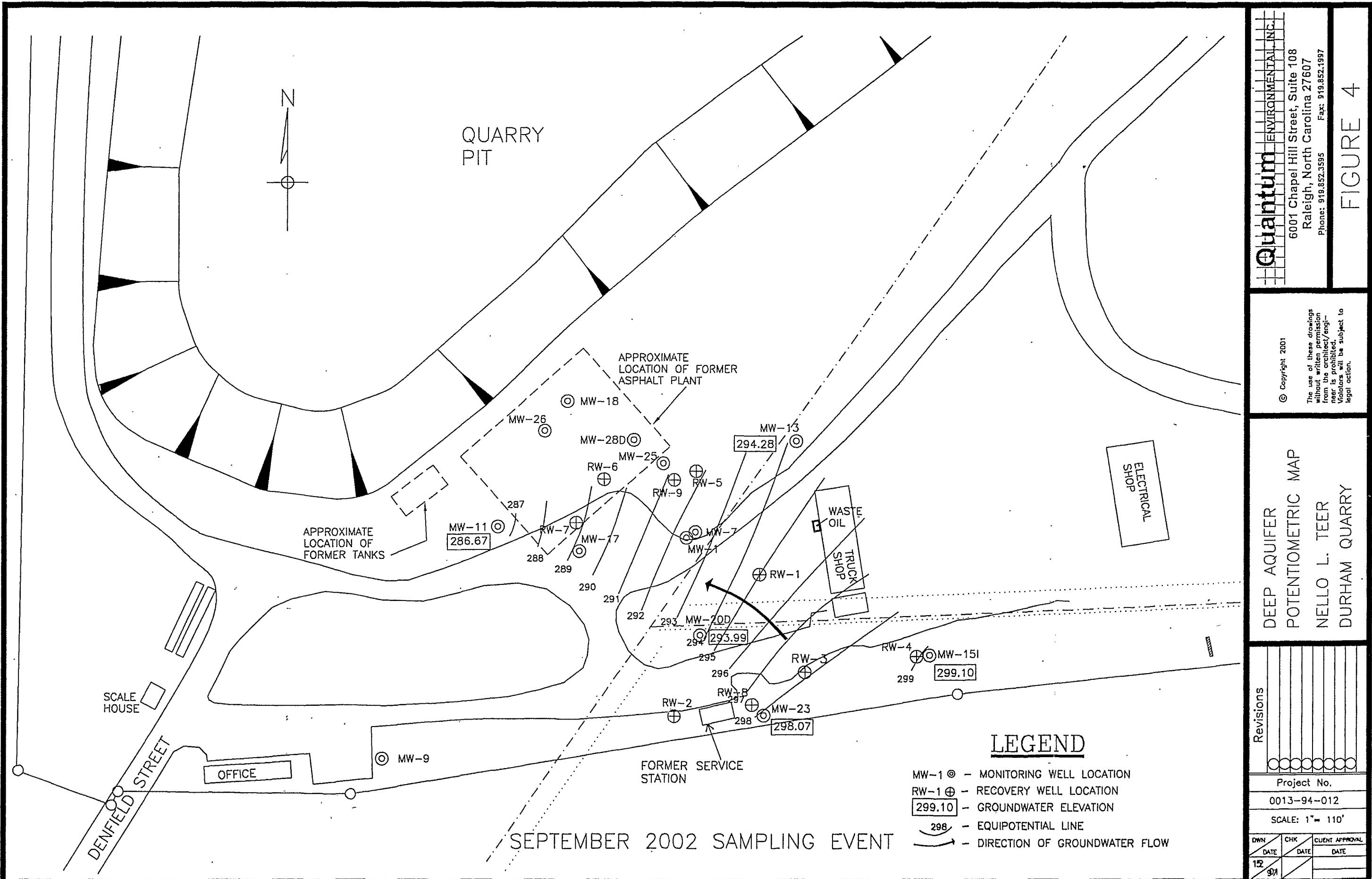


FIGURE 2



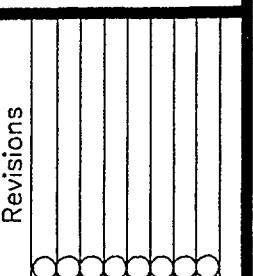


**Quantum Environmental, Inc.**  
6001 Chapel Hill Street, Suite 108  
Raleigh, North Carolina 27607  
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Fax: 919.852.1997

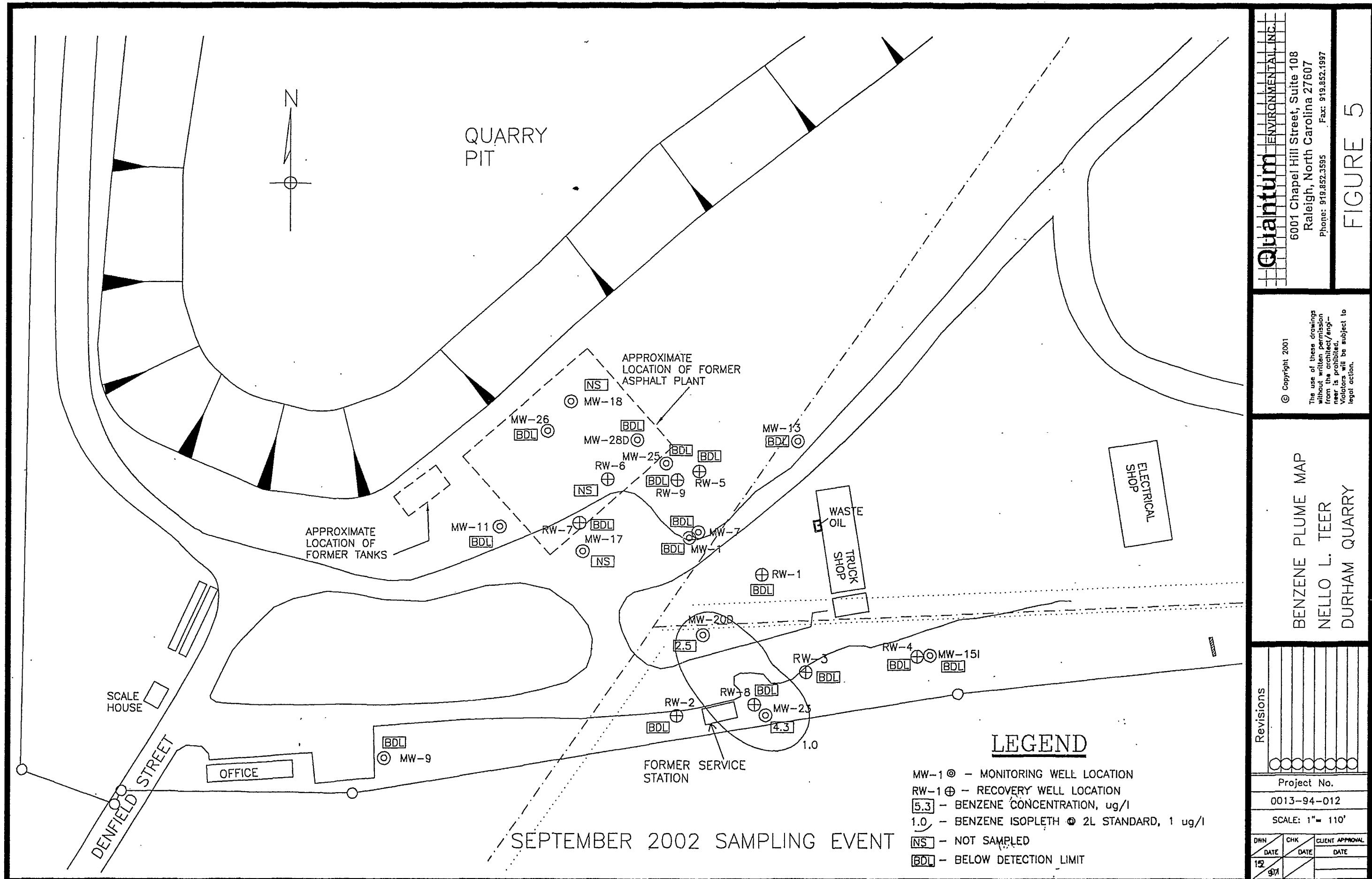
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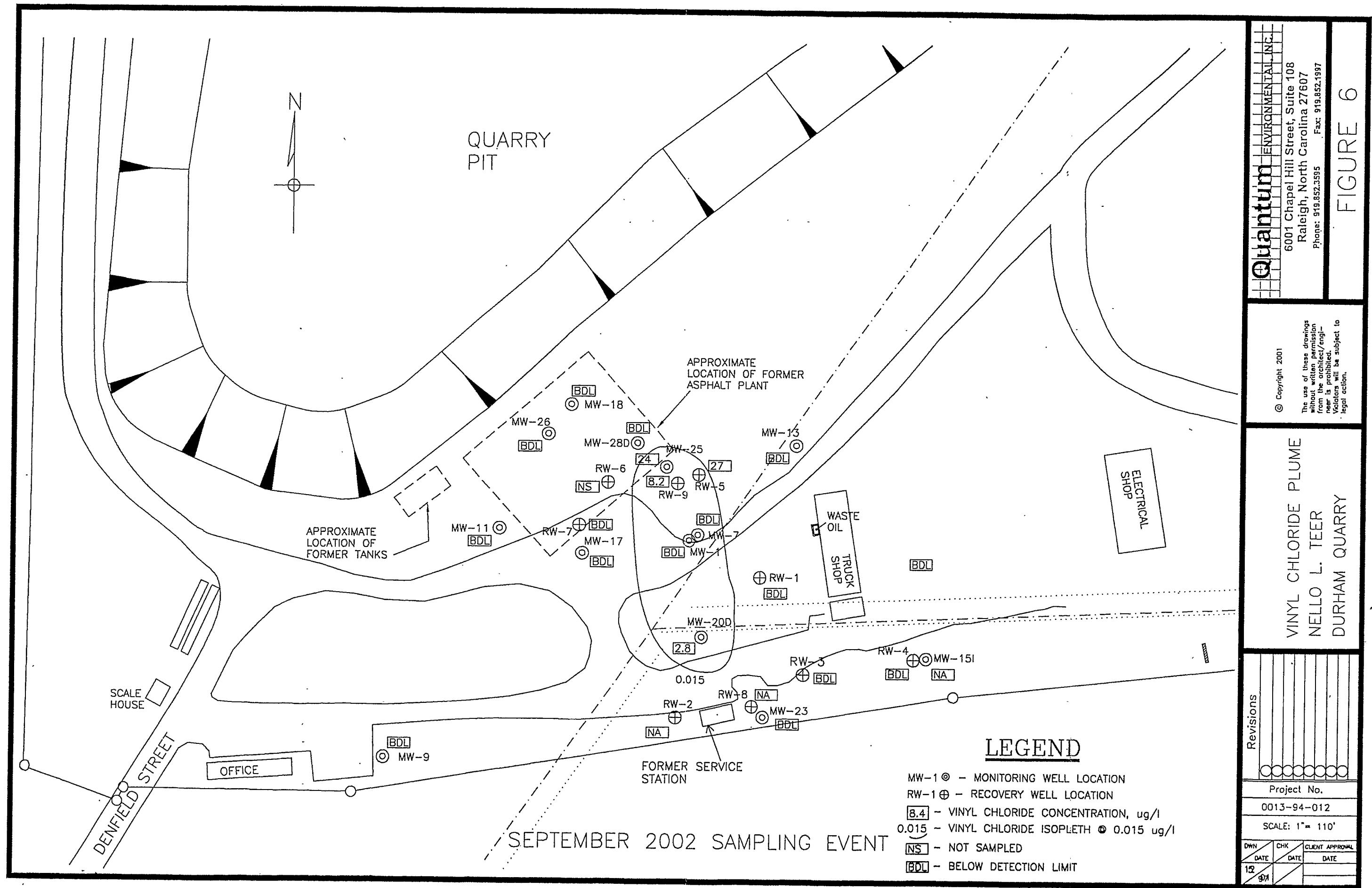
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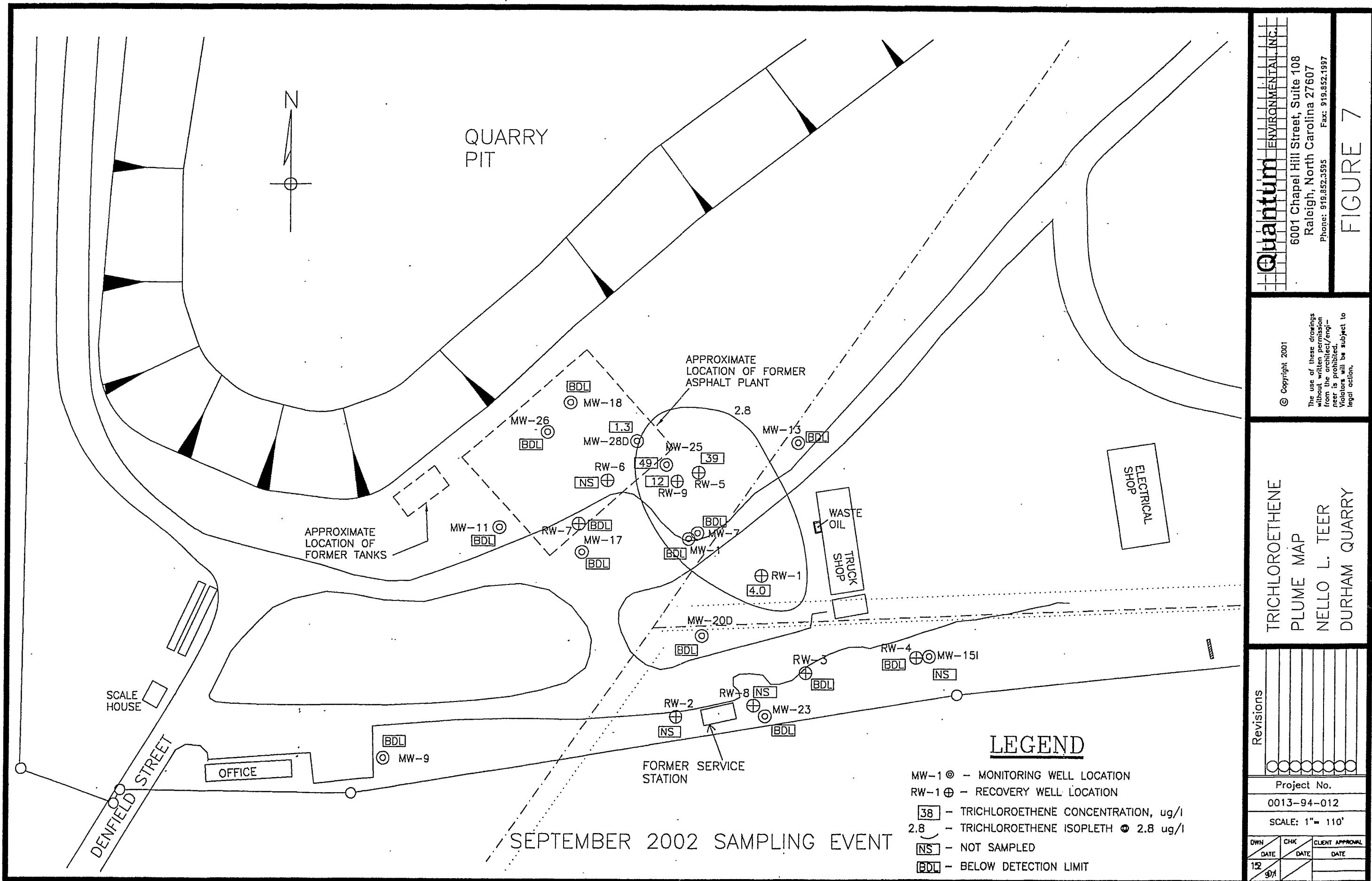
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POTENTIOMETRIC MAP  
NELLO L. TEER  
DURHAM QUARRY

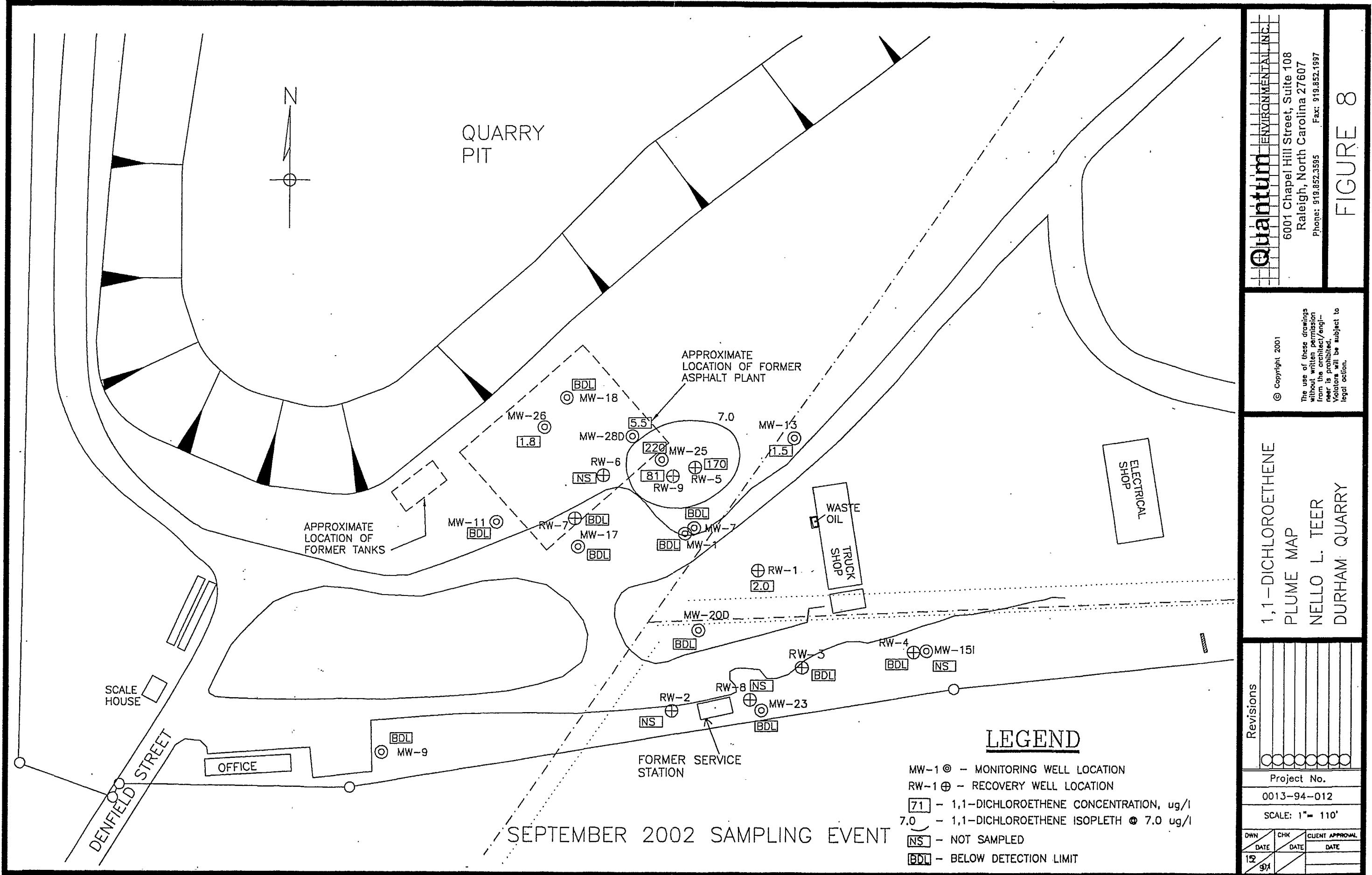


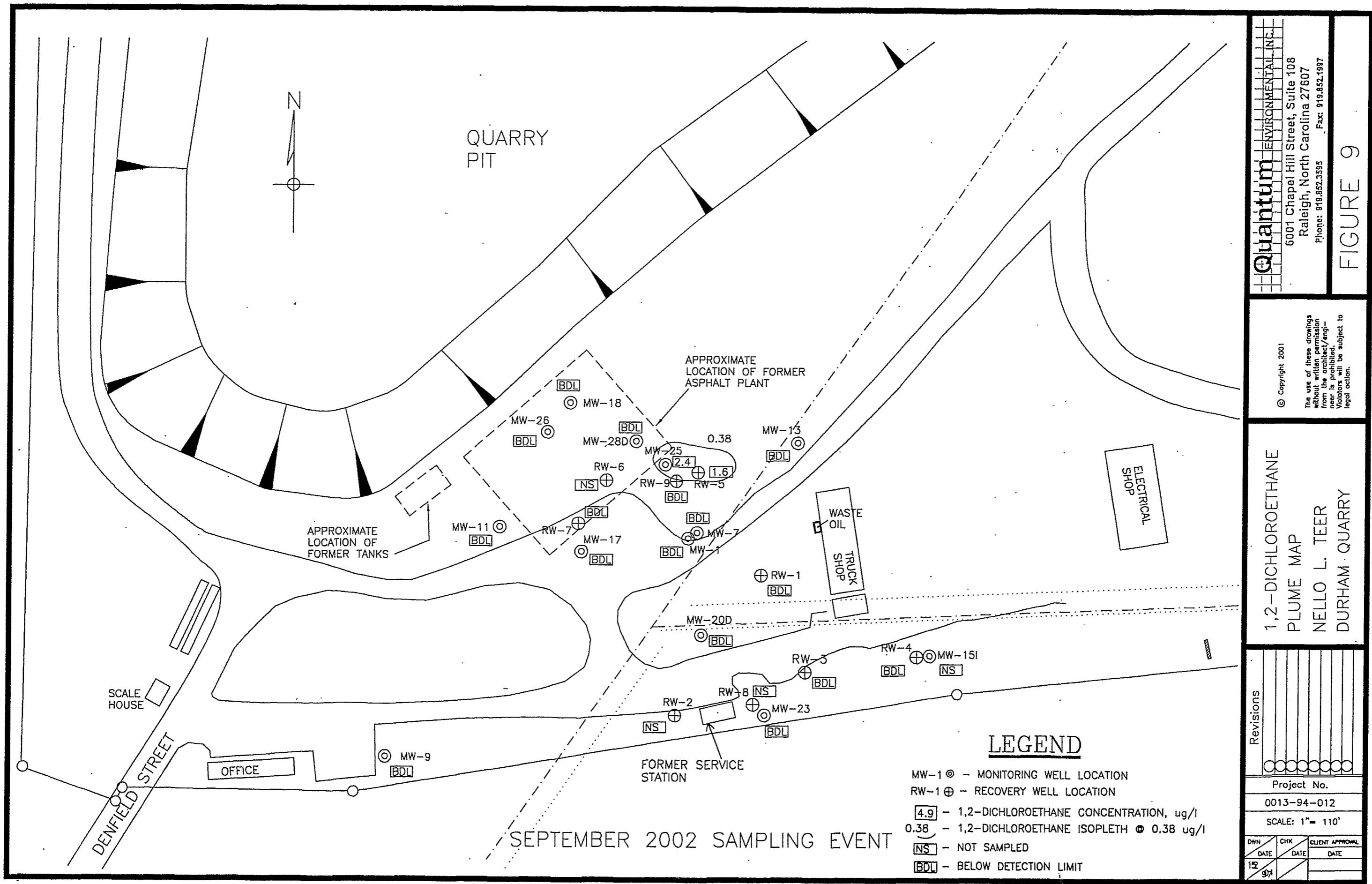
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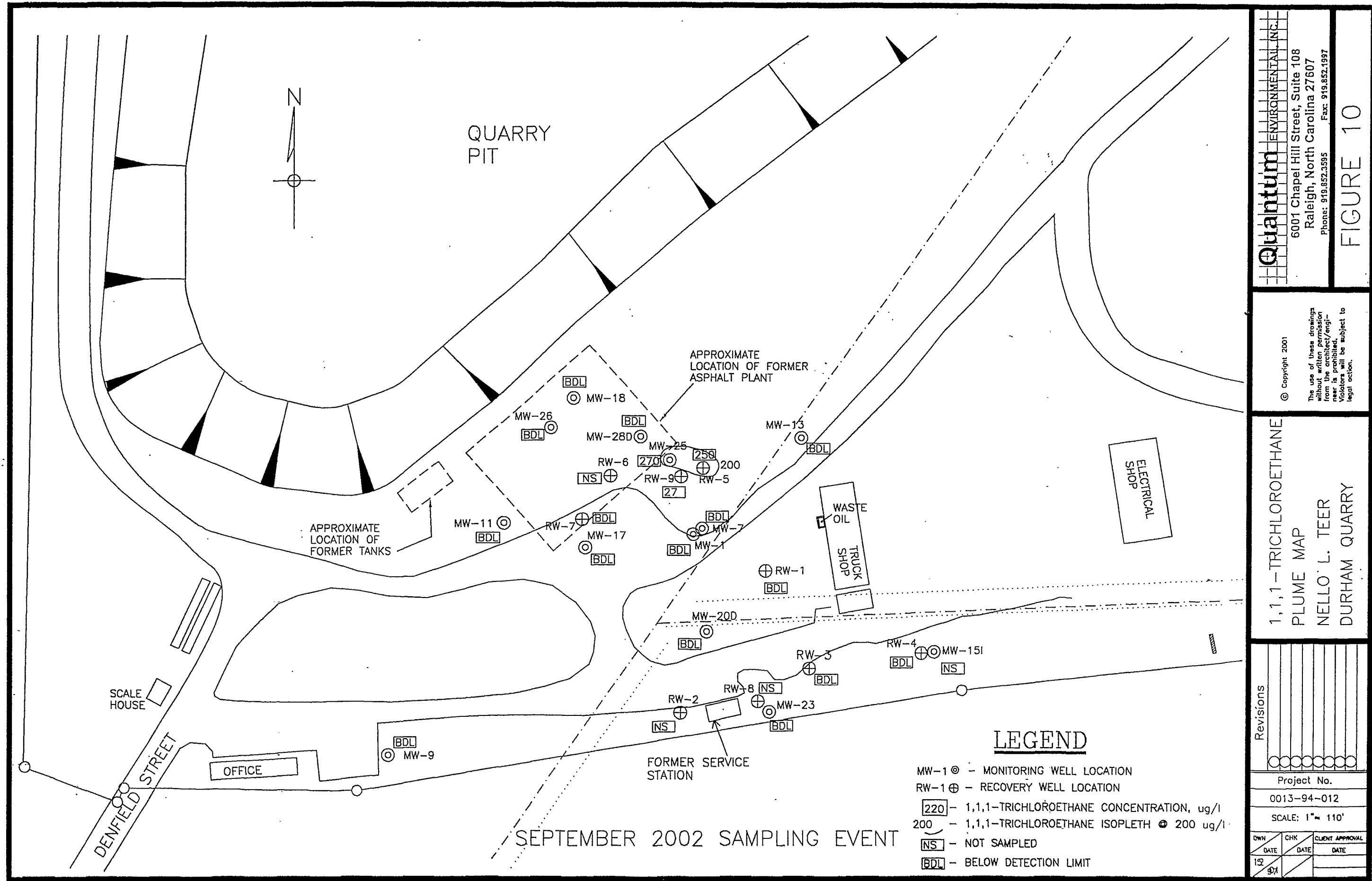












Tables

## **Tables**

**Table 1. Well and Water Level Data**  
**September 2002 Sampling Event**  
**Nello Teer Quarry, Denfield St.**  
**Durham, North Carolina**

Well #	Top of Casing Elevation <sup>a</sup>	Screen Interval <sup>b</sup>	Depth to Water <sup>c</sup>	Water Table Elevation <sup>a</sup>	Purge Volume (Gallons)
MW-1	329.5	20.0 - 35.0	24.67	304.83	19.5
MW-7	329.26	9.0 - 14.0	13.51	315.75	1
MW-9	333.65	25.0 - 40.0	32.60	301.05	4
MW-11	327.87	35.0 - 50.0	41.20	286.67	6
MW-13	326.48	50.0 - 65.0	32.20	294.28	20
MW-15I	329.53	25.0 - 40.5	30.43	299.10	6
MW-17	327.59	2.5 - 12.5	6.12	321.47	3
MW-18	328.43	3.0 - 13.0	6.76	321.67	2
MW-20D	329.58	110.0 - 115.0	35.59	293.99	40
MW-23	331.87	25.0 - 47.0	33.80	298.07	7
MW-25	328.92	4.0 - 14.0	7.93	320.99	3
MW-26	328.92	3.0 - 13.0	6.93	321.99	3

<sup>a</sup> surveyed elevation, referenced to mean sea level

<sup>b</sup> feet below land surface

<sup>c</sup> feet below top of casing

**Table 2. Groundwater Sample Results Summary-Shallow Monitoring Wells**  
**September 2002 Sampling Event**  
**Nello Teer Quarry, Denfield Street**  
**Durham, North Carolina**

PARAMETER	MW-7	MW-17	MW-18	MW-25	MW-26	2L LIMITS
Benzene	BDL <sup>a</sup>	NA <sup>b</sup>	NA	BDL	BDL	1.00
Toluene	BDL	NA	NA	BDL	BDL	1000.00
Ethylbenzene	BDL	NA	NA	BDL	BDL	29.00
Xylenes (Total)	BDL	NA	NA	BDL	BDL	530.00
MTBE	BDL	NA	NA	BDL	BDL	200.00
Bromomethane	BDL	BDL	BDL	BDL	BDL	1.00
Chloroform	BDL	BDL	BDL	BDL	BDL	0.19
Chloroethane	BDL	BDL	BDL	4.9	BDL	2800.00
1,1-Dichloroethane	BDL	BDL	BDL	180	2.8	700
1,2-Dichloroethane	BDL	BDL	BDL	<b>2.4 <sup>c</sup></b>	BDL	0.38
1,1-Dichlorethane	BDL	BDL	BDL	<b>220</b>	1.8	7.00
Trichloroethene	BDL	BDL	BDL	<b>49</b>	BDL	2.80
1,1,1-Trichloroethane	BDL	BDL	BDL	<b>270</b>	BDL	200.00
1,1,2-Trichloroethane	BDL	BDL	BDL	BDL	BDL	1.00
Tetrachloroethene	BDL	BDL	BDL	BDL	BDL	0.70
1,1,2,2-Tetrachloroethane	BDL	BDL	BDL	BDL	BDL	1.00
Vinyl chloride	BDL	BDL	BDL	<b>24</b>	BDL	0.015
Total CVOCs	--	--	--	750.3	4.6	--

All Values in  $\mu\text{g/L}$ .

<sup>a</sup> BDL Indicates Below Detection Limit

<sup>b</sup> NA Indicates Not Analyzed for

<sup>c</sup> BOLD Indicates Concentration Above State Standard

Quantum Project No. 0013-94-012

**Table 2, cont.** **Groundwater Sample Results Summary-Shallow Recovery Wells**  
**September 2002 Sampling Event**  
**Nello Teer Quarry, Denfield Street**  
**Durham, North Carolina**

PARAMETER	RW-5	RW-6	RW-7	2L LIMITS
Benzene	BDL <sup>a</sup>	NS <sup>b</sup>	BDL	1.00
Toluene	BDL	NS	BDL	1000.00
Ethylbenzene	BDL	NS	BDL	29.00
Xylenes (Total)	BDL	NS	BDL	530.00
MTBE	BDL	NS	BDL	200.00
Naphthalene	BDL	NS	BDL	21/6 <sup>c</sup>
Bromomethane	BDL	NS	BDL	1.00
Chloroform	BDL	NS	BDL	0.19
Chloroethane	4.4	NS	BDL	2800.00
1,1-Dichloroethane	150	NS	3.1	700
1,2-Dichoroethane	<b>1.6</b> <sup>d</sup>	NS	BDL	0.38
1,1-Dichlorehene	<b>170</b>	NS	BDL	7.00
Trichloroethene	<b>39</b>	NS	BDL	2.80
1,1,1-Trichloroethane	<b>250</b>	NS	BDL	200.00
1,1,2-Trichloroethane	BDL	NS	BDL	1.00
Tetrachloroethene	BDL	NS	BDL	0.70
1,1,2,2-Tetrachloroethane	BDL	NS	BDL	1.00
Vinyl Chloride	<b>27</b>	NS	BDL	0.015
<i>Total CVOCS</i>	642	NS	3.1	--

All Values in  $\mu\text{g/L}$ .

<sup>a</sup> BDL Indicates Below Detection Limit

<sup>b</sup> NS Indicates Not Sampled

<sup>c</sup> Current Standard is 21  $\mu\text{g/l}$ , Proposed Standard is 6  $\mu\text{g/l}$

<sup>d</sup> **BOLD** Indicates Concentration Above State Standard

Quantum Project No. 0013-94-012

**Table 3. Groundwater Sample Results Summary-Deep Monitoring Wells**  
**September 2002 Sampling Event**  
**Nello Teer Quarry, Denfield Street**  
**Durham, North Carolina**

PARAMETER	MW-1	MW-9	MW-11	MW-13	MW-15I	MW-20D	MW-23	2L LIMITS
Benzene	BDL <sup>a</sup>	BDL	BDL	BDL	BDL	<b>2.5<sup>b</sup></b>	<b>4.3</b>	1.00
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1000.00
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	29.00
Xylenes (Total)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	530.00
DIPE	BDL	BDL	BDL	BDL	BDL	6.1	BDL	70.00 <sup>c</sup>
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	2.5	21/6 <sup>d</sup>
1-Methylnaphthalene	NA	NA	NA	NA	BDL	BDL	8.9	NS <sup>e</sup>
2-Methylnaphthalene	NA	NA	NA	NA	BDL	BDL	3.0	28.0 <sup>c</sup>
1,1-Dichloroethane	BDL	BDL	BDL	2.9	NA	BDL	BDL	700
1,2-Dichloroethane	BDL	BDL	BDL	BDL	NA	BDL	BDL	0.38
1,1-Dichlorethane	BDL	BDL	BDL	1.5	NA	BDL	BDL	7.00
Trichloroethene	BDL	BDL	BDL	BDL	NA	BDL	BDL	2.80
1,1,1-Trichloroethane	BDL	BDL	BDL	BDL	NA	BDL	BDL	200.00
1,1,2-Trichloroethane	BDL	BDL	BDL	BDL	NA	BDL	BDL	1.00
Tetrachloroethene	BDL	BDL	BDL	BDL	NA	BDL	BDL	0.70
1,1,2,2-Tetrachloroethane	BDL	BDL	BDL	BDL	NA	BDL	BDL	1.00
Vinyl chloride	BDL	BDL	BDL	BDL	NA	<b>2.8</b>	BDL	0.015
Total CVOCs	--	--	--	4.4	--	2.8	--	--

All Values in µg/L.

<sup>a</sup> BDL Indicates Below Detection Limit

<sup>b</sup> BOLD Indicates Concentration Above State Standard

<sup>c</sup> Interim Standard

<sup>d</sup> Current Standard is 21 µg/l, Proposed Standard is 6 µg/l

<sup>e</sup> No Standard

Quantum Project No. 0013-94-012

**Table 3, cont.** **Groundwater Sample Results Summary-Deep Recovery Wells**  
**September 2002 Sampling Event**  
**Nello Teer Quarry, Denfield Street**  
**Durham, North Carolina**

PARAMETER	RW-1	RW-2	RW-3	RW-4	RW-8	RW-9	2L LIMITS
Benzene	BDL <sup>a</sup>	BDL	BDL	BDL	BDL	BDL	1:00
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	1000.00
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	29.00
Xylenes (Total)	BDL	BDL	BDL	BDL	BDL	BDL	530.00
MTBE	BDL	BDL	BDL	BDL	BDL	BDL	200.00
DIPE	BDL	BDL	BDL	BDL	8.8	BDL	70.00 <sup>c</sup>
Fluorene	BDL	BDL	12	NA <sup>e</sup>	BDL	BDL	280
Naphthalene	BDL	BDL	6.5	NA	BDL	BDL	21/6
Phenanthrene	BDL	BDL	24	NA	BDL	BDL	210
Pyrene	BDL	BDL	4.4	NA	BDL	BDL	210
1-Methylnaphthalene	NA	NA	43.0	NA	BDL	BDL	NS <sup>d</sup>
2-Methylnaphthalene	NA	NA	9.9	NA	BDL	BDL	28 <sup>c</sup>
1,1-Dichloroethane	3.4	NA	BDL	4	NA	120	700
1,2-Dichloroethane	BDL	NA	BDL	BDL	NA	BDL	0.38
1,1-Dichlorethene	2.0	NA	BDL	BDL	NA	<b>81</b>	7.00
Trichloroethene	<b>4.0</b>	NA	BDL	BDL	NA	<b>12</b>	2.80
1,1,1-Trichloroethane	BDL	NA	BDL	BDL	NA	27	200.00
1,1,2-Trichloroethane	BDL	NA	BDL	BDL	NA	BDL	1.00
Tetrachloroethene	BDL	NA	BDL	BDL	NA	BDL	0.70
1,1,2,2-Tetrachloroethane	BDL	NA	BDL	BDL	NA	BDL	1.00
Vinyl chloride	BDL	NA	BDL	BDL	NA	<b>8.2</b>	0.015
Total CVOCs	9.4	--	--	4.0	--	248.2	--

All Values in ug/L.

<sup>a</sup> BDL Indicates Below Detection Limit

<sup>b</sup> **BOLD** Indicates Concentration Above State Standard

<sup>c</sup> Interim Standard

<sup>d</sup> No Standard

<sup>e</sup> NA indicates parameter not analyzed for.

Quantum Project No. 0013-94-012

Table 4. Summary of Groundwater Analytical Results  
 Nello Teer Quarry  
 Durham County

**W-1**

Constituent	Date				2L Standard
	5/7/93	5/7/93	5/20/93	5/20/93	
Benzene	<b>16.00</b>	<b>38.80</b>	<b>34.40</b>	<b>11.30</b>	1.00
Toluene	0.90	1.00	1.80	2.60	1000.00
Ethylbenzene	0.40	1.00	1.00	8.80	29.00
Xylenes	5.10	15.40	17.20	NA	530.00
Naphthalene	NA	NA	2.00	NA	21.00
MTBE	NA	51.60	11.80	BDL	200.00
EDB	NA	NA	BDL	BDL	70.00
IPE	NA	NA	NA	BDL	0.07
Total PAH	22.40	107.80	68.20	22.70	
1,1-Dichloroethane	NA	0.73	0.73	BDL	700.00
Trichloroethene	NA	<b>4.70</b>	<b>5.04</b>	BDL	2.80
cis-,1,2-Dichloroethylene	NA	NA	NA	NA	70.00
Vinyl Chloride	BDL	BDL	BDL	BDL	0.02
Total CVCs	0.00	<b>5.43</b>	<b>5.77</b>	0.00	
Lead	NA	NA	1.00	NA	15.00

**W-2**

Constituent	Date	2L Standard
	5/18/93	
Benzene	BDL	1.00
Toluene	BDL	1000.00
Ethylbenzene	BDL	29.00
Xylenes	BDL	530.00
Naphthalene	BDL	21.00
MTBE	BDL	200.00
EDB	BDL	70.00
IPE	BDL	0.07
Total PAH	0.00	
1,1-Dichloroethane	BDL	700.00
Trichloroethene	BDL	2.80
cis-,1,2-Dichloroethylene	NA	70.00
Vinyl Chloride	BDL	0.02
Total CVCs	0.00	
Lead	0.50	15.00

BDL Indicates Below Detection Limit.

NA Indicates Not Analyzed.

NS Indicates Not Sampled.

Bold Indicates Concentration Above State 2L Standard.

Table 4. Summary of Groundwater Analytical Results  
 Nello Teer Quarry  
 Durham County

**W-3**

Constituent	Date	2L Standard
	5/19/93	
Benzene	BDL	1.00
Toluene	BDL	1000.00
Ethylbenzene	0.90	29.00
Xylenes	BDL	530.00
Naphthalene	BDL	21.00
MTBE	BDL	200.00
EDB	BDL	70.00
IPE	BDL	0.07
Total PAH	0.90	
1,1-Dichloroethane	BDL	700.00
Trichloroethene	BDL	2.80
cis-,1,2-Dichloroethylene	NA	70.00
Vinyl Chloride	BDL	0.02
Total CVOCs	0.00	
Lead	0.50	15.00

**W-4**

Constituent	Date	2L Standard
	5/19/93	
Benzene	BDL	1.00
Toluene	BDL	1000.00
Ethylbenzene	BDL	29.00
Xylenes	BDL	530.00
Naphthalene	BDL	21.00
MTBE	BDL	200.00
EDB	BDL	70.00
IPE	BDL	0.07
Total PAH	0.00	
1,1-Dichloroethane	BDL	700.00
Trichloroethene	BDL	2.80
cis-,1,2-Dichloroethylene	NA	70.00
Vinyl Chloride	BDL	0.02
Total CVOCs	0.00	
Lead	BDL	15.00

BDL Indicates Below Detection Limit.

NA Indicates Not Analyzed.

NS Indicates Not Sampled.

**Bold** Indicates Concentration Above State 2L Standard.

Table 4. Summary of Groundwater Analytical Results  
 Nello Teer Quarry  
 Durham County

W-5													
Constituent	Date			2L Standard									
	5/20/93	5/20/93	5/20/93										
Benzene	BDL	BDL	BDL										1.00
Toluene	0.07	BDL	BDL										1000.00
Ethylbenzene	BDL	BDL	BDL										29.00
Xylenes	BDL	BDL	NA										530.00
Naphthalene	BDL	2.00	NA										21.00
MTBE	BDL	BDL	BDL										200.00
EDB	BDL	1.00	BDL										70.00
IPE	BDL	NA	BDL										0.07
Total PAH	0.07	3.00	0.00										
1,1-Dichloroethane	BDL	1.00	BDL										700.00
Trichloroethene	BDL	2.10	BDL										2.80
cis-,1,2-Dichloroethylene	NA	NA	NA										70.00
Vinyl Chloride	BDL	1.00	BDL										0.02
Total CVOCs		4.10	0.00										
Lead	0.20	1.00	BDL										15.00

MW-1														2L Standard	
Constituent	Date													2L Standard	
	5/20/93 <sup>(1)</sup>	8/29/94 <sup>(2)</sup>	1/26/95 <sup>(2)</sup>	4/27/95 <sup>(2)</sup>	8/29/95 <sup>(2)</sup>	3/14/96 <sup>(2)</sup>	10/11/96 <sup>(2)</sup>	12/2/97 <sup>(3)</sup>	5/13/98 <sup>(3)</sup>	6/17/99 <sup>(4)</sup>	12/10/99	12/7/00	6/4/02	9/12/02	
Benzene	BDL	BDL	BDL	BDL	BDL	NS	BDL	BDL	1.00						
Toluene	0.70	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	BDL	BDL	1000.00
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	NS	BDL	BDL	29.00						
Xylenes	BDL	BDL	BDL	BDL	BDL	NS	BDL	BDL	530.00						
Naphthalene	BDL	BDL	BDL	BDL	BDL	NS	NA	NA	21.00						
MTBE	BDL	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	BDL	BDL	200.00
EDB	BDL	NA	NA	NA	BDL	NA	NA	NA	NA	BDL	BDL	NS	NA	NA	70.00
IPE	BDL	NA	NA	NA	BDL	NA	NA	NA	NA	BDL	BDL	NS	BDL	BDL	0.07
Total VOCs	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,1-Dichloroethane	BDL	BDL	BDL	BDL	BDL	NS	BDL	BDL	700.00						
Trichloroethene	BDL	BDL	BDL	BDL	BDL	NS	BDL	BDL	2.80						
cis-,1,2-Dichloroethylene	BDL	BDL	BDL	BDL	BDL	NS	BDL	BDL	70.00						
Vinyl Chloride	BDL	BDL	BDL	BDL	BDL	NS	BDL	BDL	0.02						
Total CVOCs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Lead	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	NA	NA	15.00

BDL Indicates Below Detection Limit.

NA Indicates Not Analyzed.

NS Indicates Not Sampled.

Bold Indicates Concentration Above State 2L Standard.

Table 4. Summary of Groundwater Analytical Results  
 Nello Teer Quarry  
 Durham County

**RW-2 (former MW-2)**

Constituent	Date										2L Standard
	5/7/93 <sup>(1)</sup>	5/20/93 <sup>(1)</sup>	8/29/94 <sup>(2)</sup>	08/29/99	06/15/00	01/23/01	06/15/01	12/28/01	06/06/02	06/06/02	
Benzene	<b>575.00</b>	<b>353.00</b>	<b>95.00</b>	<b>6.80</b>	BDL	<b>1.60</b>	NS	BDL	BDL	BDL	1.00
Toluene	<b>1,160.00</b>	418.00	19.00	BDL	1.70	BDL	NS	BDL	BDL	BDL	1000.00
Ethylbenzene	<b>84.40</b>	BDL	<b>62.00</b>	BDL	1.00	2.40	NS	BDL	BDL	BDL	29.00
Xylenes	<b>1,425.00</b>	106.00	61.00	BDL	13.00	1.10	NS	BDL	BDL	BDL	530.00
Naphthalene	NA	NA	2.78	BDL	BDL	BDL	NS	NS	NS	BDL	21.00
MTBE	NA	BDL	NA	BDL	BDL	BDL	NS	3.00	BDL	BDL	200.00
EDB	NA	BDL	NA	BDL	BDL	BDL	NS	NS	NS	NA	70.00
IPE	NA	BDL	NA	BDL	BDL	BDL	NS	NS	BDL	BDL	0.07
Total VOCs	2,200.40	877.00	239.78	6.80	15.70	5.10	NS	3.00	0.00	0.00	
1,1-Dichloroethane	NA	BDL	BDL	BDL	BDL	NS	NS	BDL	NA	NA	700.00
Trichloroethene	NA	BDL	<b>BDL</b>	BDL	BDL	BDL	NS	NS	BDL	NA	2.80
cis-,1,2-Dichloroethylene	NA	NA	<b>90.00</b>	BDL	6.50	2.60	NS	NS	BDL	NA	70.00
Vinyl Chloride	NA	BDL	BDL	BDL	BDL	NS	NS	NS	BDL	NA	0.02
Total CVOCS	0.00	0.00	90.00	0.00	6.50	2.60	NS	NS	0.00	NA	
Lead	<0.05	0.20	NA	NA	NA	NS	NS	NS	NS	NA	15.00

**MW-3**

Constituent	Date				2L Standard
	5/21/93 <sup>(1)</sup>	8/29/94 <sup>(2)</sup>	1/26/95 <sup>(2)</sup>	4/27/95 <sup>(2)</sup>	
Benzene	BDL	BDL	BDL	BDL	1.00
Toluene	BDL	BDL	BDL	BDL	1000.00
Ethylbenzene	BDL	BDL	BDL	BDL	29.00
Xylenes	BDL	BDL	BDL	BDL	530.00
Naphthalene	BDL	BDL	BDL	BDL	21.00
MTBE	BDL	BDL	BDL	NA	200.00
EDB	BDL	NA	NA	NA	70.00
IPE	BDL	NA	NA	NA	0.07
Total VOCs	0.00	0.00	0.00	0.00	
1,1-Dichloroethane	BDL	BDL	BDL	BDL	700.00
Trichloroethene	BDL	BDL	BDL	BDL	2.80
cis-,1,2-Dichloroethylene	BDL	BDL	BDL	BDL	70.00
Vinyl Chloride	BDL	BDL	BDL	BDL	0.02
Total CVOCS	0.00	0.00	0.00	0.00	
Lead	0.056	NA	NA	NA	15.00

BDL Indicates Below Detection Limit.

NA Indicates Not Analyzed.

NS Indicates Not Sampled.

Bold Indicates Concentration Above State 2L Standard.

Table 4. Summary of Groundwater Analytical Results  
 Nello Teer Quarry  
 Durham County

**MW-4**

Constituent	Date	2L Standard
	5/18/93 (1)	
Benzene	BDL	1.00
Toluene	0.70	1000.00
Ethylbenzene	BDL	29.00
Xylenes	BDL	530.00
Naphthalene	BDL	21.00
MTBE	BDL	200.00
EDB	BDL	70.00
IPE	BDL	0.07
Total VOCs	0.00	
1,1-Dichloroethane	BDL	700.00
Trichloroethene	BDL	2.80
cis-,1,2-Dichloroethylene	BDL	70.00
Vinyl Chloride	BDL	0.02
Total CVOCs	0.00	NA
Lead	0.50	15.00

**MW-5**

Constituent	Date	2L Standard
	5/7/93 (1)	5/20/93 (1)
Benzene	BDL	BDL
Toluene	BDL	BDL
Ethylbenzene	BDL	BDL
Xylenes	BDL	BDL
Naphthalene	NA	BDL
MTBE	NA	BDL
EDB	NA	BDL
IPE	NA	BDL
Total VOCs	0.00	0.00
1,1-Dichloroethane	NA	BDL
Trichloroethene	NA	BDL
cis-,1,2-Dichloroethylene	NA	BDL
Vinyl Chloride	NA	BDL
Total CVOCs	0.00	0.00
Lead	NA	0.07
		15.00

BDL Indicates Below Detection Limit.

NA Indicates Not Analyzed.

NS Indicates Not Sampled.

Bold Indicates Concentration Above State 2L Standard.

Table 4. Summary of Groundwater Analytical Results  
 Nello Teer Quarry  
 Durham County

MW-6		
Constituent	Date	2L Standard
	5/21/93 <sup>(1)</sup>	
Benzene	BDL	1.00
Toluene	BDL	1000.00
Ethylbenzene	BDL	29.00
Xylenes	BDL	530.00
Naphthalene	BDL	21.00
MTBE	BDL	200.00
EDB	BDL	70.00
IPE	BDL	0.07
Total VOCs	0.00	
1,1-Dichloroethane	BDL	700.00
Trichloroethene	BDL	2.80
cis-, 1,2-Dichloroethylene	BDL	70.00
Vinyl Chloride	BDL	0.02
Total CVOCS	0.00	
Lead	0.03	15.00

Constituent	Date												2L Standard	
	5/21/93 <sup>(1)</sup>	8/29/94 <sup>(2)</sup>	1/26/95 <sup>(2)</sup>	8/29/95 <sup>(2)</sup>	4/27/95 <sup>(2)</sup>	3/14/96 <sup>(2)</sup>	10/11/96 <sup>(2)</sup>	12/2/97 <sup>(3)</sup>	5/13/98 <sup>(3)</sup>	6/17/99 <sup>(4)</sup>	12/10/99 <sup>(4)</sup>	12/7/00 <sup>(4)</sup>	06/04/02	09/12/02
Benzene	BDL	BDL	BDL	BDL	NA	BDL	BDL	1.00						
Toluene	BDL	BDL	BDL	BDL	NA	BDL	BDL	1000.00						
Ethylbenzene	BDL	BDL	BDL	BDL	NA	BDL	BDL	29.00						
Xylenes	BDL	BDL	BDL	BDL	NA	BDL	BDL	530.00						
Naphthalene	BDL	BDL	BDL	BDL	NA	NA	NA	21.00						
MTBE	BDL	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	5.1	NA	BDL	200.00
EDB	BDL	NA	NA	BDL	NA	NA	NA	NA	NA	BDL	BDL	NA	NA	70.00
IPE	BDL	NA	NA	BDL	NA	NA	NA	NA	NA	BDL	BDL	NA	BDL	0.07
Total VOCs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.10	0.00	0.00	0.00
1,1-Dichloroethane	BDL	BDL	BDL	BDL	NA	BDL	BDL	700.00						
Trichloroethene	BDL	BDL	BDL	BDL	NA	BDL	BDL	2.80						
cis-, 1,2-Dichloroethylene	BDL	BDL	BDL	BDL	NA	BDL	BDL	70.00						
Vinyl Chloride	BDL	BDL	BDL	BDL	NA	BDL	BDL	0.02						
Total CVOCS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Lead	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15.00

BDL Indicates Below Detection Limit.

NA Indicates Not Analyzed.

NS Indicates Not Sampled.

Bold Indicates Concentration Above State 2L Standard.

Table 4. Summary of Groundwater Analytical Results  
 Nello Teer Quarry  
 Durham County

**MW-8**

Constituent	Date	2L Standard
	5/19/93 <sup>(1)</sup>	
Benzene	BDL	1.00
Toluene	BDL	1000.00
Ethylbenzene	BDL	29.00
Xylenes	BDL	530.00
Naphthalene	BDL	21.00
MTBE	BDL	200.00
EDB	BDL	70.00
IPE	BDL	0.07
Total VOCs	0.00	
1,1-Dichloroethane	BDL	700.00
Trichloroethene	BDL	2.80
cis-,1,2-Dichloroethylene	BDL	70.00
Vinyl Chloride	BDL	0.02
Total CVOCs	0.00	
Lead	<0.05	15.00

**MW-9**

Constituent	Date						2L Standard
	9/9/93 <sup>(1)</sup>	8/30/94 <sup>(2)</sup>	1/25/95 <sup>(2)</sup>	4/27/95 <sup>(2)</sup>	6/4/02	9/12/02	
Benzene	BDL	BDL	BDL	BDL	BDL	BDL	1.00
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	1000.00
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	29.00
Xylenes	BDL	BDL	BDL	BDL	BDL	BDL	530.00
Naphthalene	BDL	BDL	BDL	BDL	NA	NA	21.00
MTBE	BDL	NA	NA	BDL	BDL	BDL	200.00
EDB	BDL	NA	NA	NA	NA	NA	70.00
IPE	BDL	NA	NA	NA	BDL	BDL	0.07
Total VOCs	0.00	0.00	0.00	0.00	0.00	0.00	
1,1-Dichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	700.00
Trichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	2.80
cis-,1,2-Dichloroethylene	BDL	BDL	BDL	1.30	BDL	BDL	70.00
Vinyl Chloride	BDL	BDL	BDL	BDL	BDL	BDL	0.02
Total CVOCs	0.00	0.00	0.00	1.30	0.00	0.00	
Lead	<0.05	NA	NA	NA	NA	NA	15.00

BDL Indicates Below Detection Limit.

NA Indicates Not Analyzed.

NS Indicates Not Sampled.

**Bold** Indicates Concentration Above State 2L Standard.

Table 4. Summary of Groundwater Analytical Results  
 Nello Teer Quarry  
 Durham County

**MW-11**

Constituent	Date												2L Standard	
	9/9/93 <sup>(1)</sup>	8/30/94 <sup>(2)</sup>	1/26/95 <sup>(2)</sup>	4/27/95 <sup>(2)</sup>	8/29/95 <sup>(2)</sup>	3/13/96 <sup>(2)</sup>	10/9/96 <sup>(2)</sup>	12/3/97 <sup>(3)</sup>	5/13/98 <sup>(3)</sup>	6/17/99 <sup>(4)</sup>	12/10/99	6/4/02	9/12/02	
Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	1.00
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	1000.00
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	29.00
Xylenes	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	530.00
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	21.00
MTBE	BDL	NA	NA	NA	BDL	NA	NA	1.30	BDL	BDL	BDL	BDL	NA	200.00
EDB	BDL	NA	NA	NA	BDL	NA	NA	NA	BDL	BDL	BDL	NA	NA	70.00
IPE	BDL	NA	NA	NA	BDL	NA	NA	NA	BDL	BDL	BDL	BDL	NA	0.07
Total VOCs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.30	0.00	0.00	0.00	0.00	NA	
1,1-Dichloroethane	0.60	BDL	BDL	BDL	BDL	2.40	BDL	3.00	2.20	1.00	BDL	BDL	BDL	700.00
Trichloroethene	BDL	BDL	2.50	1.80	BDL	1.60	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.80
cis-,1,2-Dichloroethylene	BDL	BDL	BDL	22.90	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70.00
Vinyl Chloride	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.02
Total CVOCS	0.60	0.00	2.50	24.70	0.00	4.00	0.00	3.00	2.20	1.00	0.00	0.00	0.00	
Lead	<0.05	NA	NA	NA	NA	15.00								

**MW-12**

Constituent	Date				2L Standard
	9/9/93 <sup>(1)</sup>	8/30/94 <sup>(2)</sup>	1/26/95 <sup>(2)</sup>	4/27/95 <sup>(2)</sup>	
Benzene	BDL	BDL	BDL	BDL	1.00
Toluene	BDL	BDL	BDL	BDL	1000.00
Ethylbenzene	BDL	BDL	BDL	BDL	29.00
Xylenes	BDL	BDL	BDL	BDL	530.00
Naphthalene	BDL	BDL	BDL	BDL	21.00
MTBE	BDL	NA	NA	NA	200.00
EDB	BDL	NA	NA	NA	70.00
IPE	BDL	NA	NA	NA	0.07
Total VOCs	0.00	0.00	0.00	0.00	
1,1-Dichloroethane	BDL	BDL	BDL	BDL	700.00
Trichloroethene	BDL	BDL	BDL	BDL	2.80
cis-,1,2-Dichloroethylene	BDL	BDL	BDL	BDL	70.00
Vinyl Chloride	BDL	BDL	BDL	BDL	0.02
Total CVOCS	0.00	0.00	0.00	0.00	
Lead	<0.05	NA	NA	NA	15.00

BDL Indicates Below Detection Limit.

NA Indicates Not Analyzed.

NS Indicates Not Sampled.

Bold Indicates Concentration Above State 2L Standard.

Table 4. Summary of Groundwater Analytical Results

Nello Teer Quarry  
Durham County

## MW-13

Constituent	Date														2L Standard		
	9/9/93 <sup>(1)</sup>	8/31/94 <sup>(2)</sup>	1/26/95 <sup>(2)</sup>	4/27/95 <sup>(2)</sup>	8/29/95 <sup>(2)</sup>	3/14/96 <sup>(2)</sup>	10/9/96 <sup>(2)</sup>	12/3/97 <sup>(3)</sup>	5/13/98 <sup>(3)</sup>	6/17/99 <sup>(4)</sup>	12/10/99 <sup>(4)</sup>	12/7/00	6/13/01	12/28/01	6/4/02	9/12/02	
Benzene	BDL	<b>3.10</b>	BDL	BDL	<b>1.13</b>	<b>3.40</b>	BDL	<b>1.00</b>	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.00	
Toluene	BDL	BDL	BDL	BDL	2.83	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1000.00	
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	29.00	
Xylenes	BDL	BDL	BDL	BDL	2.63	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	530.00	
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	21.00	
MTBE	BDL	NA	NA	NA	BDL	BDL	BDL	3.20	2.00	BDL	BDL	BDL	BDL	BDL	BDL	200.00	
EDB	BDL	NA	NA	NA	BDL	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	NA	70.00
IPE	BDL	NA	NA	NA	23.10	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	0.07	
Total VOCs	0.00	0.00	0.00	0.00	29.69	3.40	0.00	4.20	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,1-Dichloroethane	4.40	6.00	7.90	13.20	2.06	2.40	2.67	11.00	7.90	3.30	6.4	3.7	5.2	4	4.90	2.90	700.00
1,1,1-Trichloroethane	BDL	BDL	BDL	BDL	BDL	3.80	BDL	2.70	BDL	BDL	2.2	BDL	BDL	BDL	BDL	200.00	
Trichloroethene	BDL	<b>5.10</b>	BDL	<b>4.10</b>	BDL	<b>2.90</b>	<b>3.02</b>	2.40	BDL	2.40	2.8	BDL	1.30	1.40	1.50	BDL	2.80
1,1-Dichloroethene	BDL	BDL	BDL	2.30	BDL	3.00	BDL	2.50	1.70	1.70	4.2	2.2	3.8	1	BDL	1.50	7.00
cis-,1,2-Dichloroethylene	BDL	3.40	BDL	3.40	2.48	4.10	BDL	BDL	BDL	2.70	2.2	2.3	2.1	2.1	BDL	BDL	70.00
Vinyl Chloride	BDL	BDL	BDL	BDL	BDL	<b>1.40</b>	BDL	BDL	<b>1.20</b>	BDL	BDL	BDL	<b>1.20</b>	<b>1.00</b>	BDL	BDL	0.02
Total CVOCs	4.40	14.50	7.90	23.00	57.33	21.00	5.69	18.60	10.80	10.10	17.80	8.20	13.60	9.50	6.40	4.40	
Lead	<0.05	NA	NA	NA	NA	NA	NA	15.00									

## MW-14S

Constituent	Date										2L Standard
	9/9/93 <sup>(1)</sup>	8/30/94 <sup>(2)</sup>	1/31/95 <sup>(2)</sup>	4/27/95 <sup>(2)</sup>	8/30/95 <sup>(2)</sup>	3/15/96 <sup>(2)</sup>	10/9/96 <sup>(2)</sup>	12/2/97 <sup>(3)</sup>	5/13/98 <sup>(3)</sup>		
Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.00
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	1.17	BDL	BDL	BDL	1000.00
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	29.00
Xylenes	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	530.00
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	2.10	BDL	BDL	BDL	21.00
MTBE	BDL	NA	NA	BDL	<b>507.00</b>	BDL	BDL	4.10	2.20	BDL	200.00
EDB	BDL	NA	NA	NA	BDL	NA	NA	NA	NA	NA	70.00
IPE	BDL	NA	NA	NA	BDL	NA	NA	NA	NA	NA	0.07
Total VOCs	0.00	0.00	0.00	0.00	507.00	0.00	3.27	4.10	2.20		
1,1-Dichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	700.00
Trichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.80
cis-,1,2-Dichloroethylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70.00
Vinyl Chloride	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.02
Total CVOCs	0.00	0.00	0.00	0.00	0.00	0.00	3.27	0.00	0.00		
Lead	<0.05	NA	NA	15.00							

BDL Indicates Below Detection Limit.

NA Indicates Not Analyzed.

NS Indicates Not Sampled.

Bold Indicates Concentration Above State 2L Standard.

Table 4. Summary of Groundwater Analytical Results  
 Nello Teer Quarry  
 Durham County

**MW-14I**

Constituent	Date											2L Standard
	9/9/93 <sup>(1)</sup>	8/30/94 <sup>(2)</sup>	1/31/95 <sup>(2)</sup>	4/27/95 <sup>(2)</sup>	3/15/96 <sup>(2)</sup>	10/9/96 <sup>(2)</sup>	12/3/97 <sup>(3)</sup>	5/13/98 <sup>(3)</sup>	6/17/99 <sup>(4)</sup>	12/10/99	12/7/00	
Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	BDL 1.00
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	BDL 1000.00
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	BDL 29.00
Xylenes	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	BDL 530.00
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	BDL 21.00
MTBE	BDL	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	NS	BDL 200.00
EDB	BDL	NA	BDL	BDL	NS	BDL 70.00						
IPE	BDL	NA	BDL	BDL	NS	BDL 0.07						
Total VOCs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,1-Dichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS 700.00
Trichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS 2.80
cis-,1,2-Dichloroethylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS 70.00
Vinyl Chloride	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	NS 0.02
Total CVOCs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS
Lead	<0.05	NA	NA	NS	15.00							

**MW-15S**

Constituent	Date					2L Standard
	9/9/93 <sup>(1)</sup>	8/31/94 <sup>(2)</sup>	1/26/95 <sup>(2)</sup>	4/27/95 <sup>(2)</sup>	8/30/95 <sup>(2)</sup>	
Benzene	10.70	17.50	BDL	BDL	BDL	1.00
Toluene	8.80	2.60	BDL	BDL	BDL	1000.00
Ethylbenzene	76.40	147.00	43.00	56.30	77.70	29.00
Xylenes	NA	430.00	170.00	188.00	205.00	530.00
Naphthalene	13.00	63.30	60.90	53.40	27.60	21.00
MTBE	8.30	NA	NA	NA	BDL	200.00
EDB	BDL	NA	NA	NA	BDL	70.00
IPE	BDL	NA	NA	NA	BDL	0.07
Total VOCs	117.20	660.40	273.90	297.70	310.30	
1,1-Dichloroethane	BDL	BDL	BDL	BDL	BDL	700.00
Trichloroethene	BDL	BDL	BDL	BDL	BDL	2.80
cis-,1,2-Dichloroethylene	BDL	BDL	BDL	BDL	BDL	70.00
Vinyl Chloride	BDL	BDL	BDL	BDL	BDL	0.02
Total CVOCs	0.00	0.00	0.00	0.00	0.00	
Lead	<0.05	NA	NA	NA	NA	15.00

BDL Indicates Below Detection Limit.

NA Indicates Not Analyzed.

NS Indicates Not Sampled.

Bold Indicates Concentration Above State 2L Standard.

Table 4. Summary of Groundwater Analytical Results  
 Nello Teer Quarry  
 Durham County

**MW-15I**

Constituent	Date													2L Standard		
	9/9/93 <sup>(1)</sup>	8/31/94 <sup>(2)</sup>	1/26/95 <sup>(2)</sup>	4/27/95 <sup>(2)</sup>	8/30/95 <sup>(2)</sup>	3/15/96 <sup>(2)</sup>	10/9/96 <sup>(2)</sup>	12/2/97 <sup>(3)</sup>	5/13/98 <sup>(3)</sup>	6/17/99 <sup>(4)</sup>	12/10/99 <sup>(4)</sup>	6/7/00 <sup>(4)</sup>	6/15/01	06/04/02	09/12/02	
Benzene	BDL	BDL	BDL	BDL	2.16	BDL	BDL	BDL	1.30	4.80	2.5	BDL	BDL	BDL	BDL	1.00
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.00	BDL	BDL	BDL	BDL	BDL	BDL	1000.00
Ethylbenzene	BDL	2.70	3.40	1.90	BDL	BDL	BDL	BDL	BDL	1.20	BDL	BDL	BDL	BDL	BDL	29.00
Xylenes	BDL	3.60	9.00	BDL	BDL	BDL	BDL	BDL	BDL	1.90	4.4	BDL	BDL	BDL	BDL	530.00
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.20	BDL	BDL	BDL	BDL	NA	BDL	21.00
MTBE	BDL	NA	NA	BDL	44.60	BDL	BDL	12.00	13.00	BDL	6.1	BDL	BDL	BDL	BDL	200.00
EDB	BDL	NA	NA	NA	BDL	NA	NA	NA	NA	BDL	BDL	BDL	BDL	NA	NA	70.00
IPE	BDL	NA	NA	NA	5.70	NA	NA	NA	NA	BDL	BDL	NA	BDL	BDL	BDL	0.07
Total VOCs	BDL	6.30	12.40	1.90	52.46	0.00	0.00	12.00	15.20	8.90	10.50	0.00	0.00	0.00	0.00	0.00
1,1-Dichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	BDL	NA	700.00	
Trichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	BDL	NA	2.80	
cis-1,2-Dichloroethylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	BDL	NA	70.00	
Vinyl Chloride	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NS	BDL	NA	0.02	
Total CVOCS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	BDL	NA	
Lead	<0.05	NA	NA	NS	NA	NA	15.00									

**MW-16S**

Constituent	Date							2L Standard	
	9/9/93 <sup>(1)</sup>	8/30/94 <sup>(2)</sup>	1/25/95 <sup>(2)</sup>	4/27/95 <sup>(2)</sup>	3/14/96 <sup>(2)</sup>	10/9/96 <sup>(2)</sup>	5/13/98 <sup>(3)</sup>		
Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.00	
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1000.00	
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	29.00	
Xylenes	BDL	BDL	BDL	BDL	BDL	BDL	BDL	530.00	
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	21.00	
MTBE	BDL	NA	NA	BDL	BDL	BDL	BDL	200.00	
EDB	BDL	NA	NA	NA	NA	NA	NA	70.00	
IPE	BDL	NA	NA	NA	NA	NA	NA	0.07	
Total VOCs	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1,1-Dichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	700.00	
Trichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.80	
cis-1,2-Dichloroethylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70.00	
Vinyl Chloride	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.02	
Total CVOCS	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Lead	<0.05	NA	NA	NA	NA	NA	NA	15.00	

BDL Indicates Below Detection Limit.

NA Indicates Not Analyzed.

NS Indicates Not Sampled.

**Bold** Indicates Concentration Above State 2L Standard.

Table 4. Summary of Groundwater Analytical Results

Nello Teer Quarry  
Durham County

## MW-16I

Constituent	Date											2L Standard
	9/9/93 <sup>(1)</sup>	8/31/94 <sup>(2)</sup>	1/26/95 <sup>(2)</sup>	4/27/95 <sup>(2)</sup>	3/14/96 <sup>(2)</sup>	10/9/96 <sup>(2)</sup>	12/1/97 <sup>(3)</sup>	5/13/98 <sup>(3)</sup>	6/17/99 <sup>(4)</sup>	12/10/99		
Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.00	Well removed from
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1000	active monitoring network
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	29	in June, 2000
Xylenes	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	530	
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	21	
MTBE	BDL	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	200	
EDB	BDL	NA	NA	NA	NA*	NA	NA	NA	BDL	BDL	70	
IPE	BDL	NA	BDL	BDL	0.07							
Total VOCs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,1-Dichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	700	
Trichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	1.1	BDL	BDL	BDL	2.8	
cis-, 1,2-Dichloroethylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70	
Vinyl Chloride	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.02	
Total CVOCS	0.00	0.00	0.00	0.00	0.00	0.00	1.1	0.00	0.00	0.00	0.00	
Lead	<0.05	NA	NA	15								

## MW-17

Constituent	Date													2L Standard			
	9/9/93 <sup>(1)</sup>	8/30/94 <sup>(2)</sup>	1/31/95 <sup>(2)</sup>	4/27/95 <sup>(2)</sup>	8/29/95 <sup>(2)</sup>	3/13/96 <sup>(2)</sup>	10/9/96 <sup>(2)</sup>	12/2/97 <sup>(3)</sup>	5/13/98 <sup>(3)</sup>	6/17/99 <sup>(4)</sup>	12/10/99	6/7/00	6/15/01	12/28/01	6/4/02	9/12/02	
Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	BDL	BDL	1.00	
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	BDL	BDL	1000.00	
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	BDL	BDL	29.00	
Xylenes	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	BDL	BDL	530.00	
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	BDL	BDL	21.00	
MTBE	BDL	NA	NA	NA	BDL	NA	NA	BDL	BDL	BDL	BDL	NA	NA	BDL	BDL	200.00	
EDB	BDL	NA	NA	NA	BDL	NA	NA	NA	BDL	BDL	BDL	NA	NA	NA	NA	70.00	
IPE	BDL	NA	NA	NA	BDL	NA	NA	NA	BDL	BDL	BDL	NA	NA	BDL	BDL	0.07	
Total VOCs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,1-Dichloroethane	17.10	BDL	15.50	23.30	23.40	10.40	9.33	7.40	7.20	6.00	7.3	2.6	1.9	1.9	3.90	BDL	700.00
Trichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.80	
cis-,1,2-Dichloroethylene	BDL	BDL	3.80	2.10	2.92	1.30	BDL	BDL	BDL	1.00	BDL	BDL	BDL	BDL	BDL	70.00	
Vinyl Chloride	<b>2.20</b>	<b>38.90</b>	<b>63.00</b>	BDL	<b>23.40</b>	<b>35.30</b>	<b>21.70</b>	BDL	<b>2.60</b>	<b>5.00</b>	<b>5.7</b>	<b>1.70</b>	<b>2.50</b>	<b>2.00</b>	<b>3.20</b>	BDL	0.02
Total CVOCS	19.30	38.90	82.30	25.40	49.72	47.00	31.03	7.40	9.80	12.00	13.00	4.30	4.40	3.90	7.10	0.00	
Lead	<0.05	NA	NA	NA	NA	NA	NA	15.00									

BDL Indicates Below Detection Limit.

NA Indicates Not Analyzed.

NS Indicates Not Sampled.

Bold Indicates Concentration Above State 2L Standard.

Table 4. Summary of Groundwater Analytical Results

Nello Teer Quarry  
Durham County

## MW-18

Constituent	Date														2L Standard		
	9/9/93 <sup>(1)</sup>	8/30/94 <sup>(2)</sup>	1/31/95 <sup>(2)</sup>	4/27/95 <sup>(2)</sup>	8/29/95 <sup>(2)</sup>	3/14/96 <sup>(2)</sup>	10/9/96 <sup>(2)</sup>	12/2/97 <sup>(3)</sup>	5/13/98 <sup>(3)</sup>	6/17/99 <sup>(4)</sup>	12/10/99	6/7/00	6/15/01	1/2/02	06/04/02	09/12/02	
Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	BDL	NA	1.00	
Toluene	1.30	BDL	BDL	NA	NA	BDL	NA	1000.00									
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	BDL	NA	29.00	
Xylenes	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	BDL	NA	530.00	
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	BDL	NA	21.00	
MTBE	BDL	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	BDL	NA	200.00	
EDB	BDL	NA	NA	NA	BDL	NA	NA	NA	NA	NA	BDL	NA	NA	NA	NA	70.00	
IPE	BDL	NA	NA	NA	BDL	NA	NA	NA	NA	NA	BDL	NA	NA	BDL	NA	0.07	
Total VOCs	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	BDL	BDL	BDL	
1,1-Dichloroethane	48.10	BDL	BDL	97.90	71.30	5.80	10.60	12.00	1.50	BDL	1.40	BDL	2.30	1.90	1.90	BDL	700.00
1,2-Dichloroethane	BDL	BDL	27.00	BDL	BDL	BDL	BDL	BDL	BDL	0.38							
1,1-Dichloroethene	BDL	BDL	3.90	BDL	1.93	BDL	BDL	1.70	BDL	BDL	BDL	BDL	BDL	BDL	BDL	7.00	
Trichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.80	
cis-,1,2-Dichloroethylene	NA	BDL	4.80	1.40	3.73	BDL	BDL	BDL	BDL	BDL	BDL	3.40	2.50	BDL	BDL	70.00	
Vinyl Chloride	10.90	BDL	50.00	BDL	58.90	16.30	10.90	8.10	2.30	BDL	3.80	BDL	4.70	1.60	2.20	BDL	0.02
Chloroethane	BDL	BDL	50.00	BDL	59.00	9.50	BDL	1.30	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.00	
Total CVOCs	59.00	0.00	135.70	99.30	194.86	31.60	21.50	23.10	3.80	0.00	5.20	0.00	10.40	6.00	4.10	0.00	
Lead	<0.05	NA	NA	NA	NA	NA	NA	15.00									

## MW-19

Constituent	Date								2L Standard	
	9/9/93 <sup>(1)</sup>	8/30/94 <sup>(2)</sup>	1/31/95 <sup>(2)</sup>	4/27/95 <sup>(2)</sup>	3/14/96 <sup>(2)</sup>	10/9/96 <sup>(2)</sup>	12/2/97 <sup>(3)</sup>	5/13/98 <sup>(3)</sup>	2L Standard	2L Standard
Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.00	
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1000.00	
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	29.00	
Xylenes	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	530.00	
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	21.00	
MTBE	BDL	NA	NA	NA	NA	NA	BDL	BDL	200.00	
EDB	BDL	NA	70.00							
IPE	BDL	NA	0.07							
Total VOCs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1,1-Dichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	700.00	
Trichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.80	
cis-,1,2-Dichloroethylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	70.00	
Vinyl Chloride	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.02	
Total CVOCs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Lead	<0.05	NA	15.00							

BDL Indicates Below Detection Limit.

NA Indicates Not Analyzed.

NS Indicates Not Sampled.

Bold Indicates Concentration Above State 2L Standard.

Table 4. Summary of Groundwater Analytical Results

Nello Teer Quarry  
Durham County

## MW-20S

Constituent	Date						2L Standard
	9/9/93 <sup>(1)</sup>	8/30/94 <sup>(2)</sup>	1/25/95 <sup>(2)</sup>	4/27/95 <sup>(2)</sup>	8/30/95 <sup>(2)</sup>	3/14/96 <sup>(2)</sup>	
Benzene	15.00	64.40	44.00	71.80	64.40	64.90	1.00
Toluene	1.80	9.50	6.20	BDL	26.00	2.40	1000.00
Ethylbenzene	BDL	16.38	7.00	14.60	25.30	5.90	29.00
Xylenes	BDL	21.00	16.70	20.60	80.70	17.00	530.00
Naphthalene	BDL	3.84	3.29	4.90	BDL	4.50	21.00
MTBE	7.30	BDL	BDL	BDL	9.69	BDL	200.00
EDB	BDL	NA	NA	NA	BDL	NA	70.00
IPE	14.20	NA	NA	NA	50.00	NA	0.07
Total VOCs	38.30	115.12	77.19	111.90	256.09	94.70	
1,1-Dichloroethane	BDL	BDL	BDL	BDL	BDL	700.00	
Trichloroethene	BDL	BDL	BDL	BDL	BDL	2.80	
cis-,1,2-Dichloroethylene	BDL	BDL	BDL	BDL	BDL	70.00	
Vinyl Chloride	BDL	BDL	BDL	BDL	BDL	0.02	
Total CVOCs	0.00	0.00	0.00	0.00	0.00	0.00	
Lead	<0.05	NA	NA	NA	NA	NA	15.00

## MW-20D

Constituent	Date														2L Standard		
	9/9/93 <sup>(1)</sup>	8/31/94 <sup>(2)</sup>	1/25/95 <sup>(2)</sup>	4/27/95 <sup>(2)</sup>	8/30/95 <sup>(2)</sup>	3/15/96 <sup>(2)</sup>	10/11/96 <sup>(2)</sup>	12/2/97 <sup>(3)</sup>	5/13/98 <sup>(3)</sup>	6/17/99 <sup>(4)</sup>	12/10/99 <sup>(4)</sup>	12/7/00	6/14/01	1/2/02	06/04/02	09/12/02	
Benzene	15.00	30.00	22.00	29.80	30.30	20.00	21.60	16.00	13.00	12.30	1.80	1.50	BDL	1.80	2.60	2.50	1.00
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1000.00
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	29.00
Xylenes	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.10	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	530.00
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3.40	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	21.00
MTBE	6.20	NA	NA	NA	BDL	NA	NA	5.70	4.30	BDL	BDL	BDL	BDL	BDL	BDL	BDL	200.00
EDB	BDL	NA	NA	NA	BDL	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	70.00
IPE	14.20	NA	NA	NA	26.60	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	5.30	6.10	0.07
Total VOCs	35.40	30.00	22.00	29.80	56.90	20.00	21.60	26.20	17.30	12.30	1.80	1.50	0.00	1.80	7.90	8.60	
1,1-Dichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	700.00
Trichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.80
cis-,1,2-Dichloroethylene	BDL	8.00	BDL	5.20	5.47	4.00	BDL	BDL	BDL	1.10	BDL	BDL	BDL	BDL	BDL	BDL	70.00
Vinyl Chloride	BDL	BDL	BDL	BDL	4.30	BDL	1.70	3.20	3.00	BDL	BDL	BDL	1.20	2.30	3.20	2.80	0.02
Total CVOCs	0.00	8.00	0.00	5.20	5.47	8.30	0.00	1.70	3.20	4.10	0.00	0.00	1.20	2.30	3.20	2.80	
Lead	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15.00

BDL Indicates Below Detection Limit.

NA Indicates Not Analyzed.

NS Indicates Not Sampled.

Bold Indicates Concentration Above State 2L Standard.

Table 4. Summary of Groundwater Analytical Results  
 Nello Teer Quarry  
 Durham County

**MW-21**

Constituent	Date					2L Standard
	9/9/93 <sup>(1)</sup>	8/30/94 <sup>(2)</sup>	1/26/95 <sup>(2)</sup>	4/27/95 <sup>(2)</sup>	3/15/96 <sup>(2)</sup>	
Benzene	BDL	BDL	BDL	BDL	BDL	1.00
Toluene	BDL	BDL	BDL	BDL	BDL	1000.00
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	29.00
Xylenes	BDL	BDL	BDL	BDL	BDL	530.00
Naphthalene	BDL	BDL	BDL	BDL	BDL	21.00
MTBE	BDL	NA	NA	NA	BDL	200.00
EDB	BDL	NA	NA	NA	NA	70.00
IPE	BDL	NA	NA	NA	NA	0.07
Total VOCs	0.00	0.00	0.00	0.00	0.00	
1,1-Dichloroethane	BDL	BDL	BDL	BDL	BDL	700.00
Trichloroethene	BDL	BDL	BDL	BDL	BDL	2.80
cis-, 1,2-Dichloroethylene	BDL	BDL	BDL	BDL	BDL	70.00
Vinyl Chloride	BDL	BDL	BDL	BDL	BDL	0.02
Total CVOCS	0.00	0.00	0.00	0.00	0.00	
Lead	<0.05	NA	NA	NA	NA	15.00

**MW-22**

Constituent	Date											2L Standard	
	4/28/94 <sup>(1)</sup>	8/30/94 <sup>(2)</sup>	1/25/95 <sup>(2)</sup>	4/27/95 <sup>(2)</sup>	8/30/95 <sup>(2)</sup>	3/14/96 <sup>(2)</sup>	10/9/96 <sup>(2)</sup>	12/2/97 <sup>(3)</sup>	5/13/98 <sup>(3)</sup>	6/17/99 <sup>(4)</sup>	12/10/99	12/7/00	
Benzene	<b>9.40</b>	BDL	BDL	NS	1.00								
Toluene	BDL	BDL	NS	1000.00									
Ethylbenzene	BDL	BDL	NS	29.00									
Xylenes	BDL	BDL	NS	530.00									
Naphthalene	BDL	BDL	NS	21.00									
MTBE	BDL	NA	NA	NA	BDL	NA	NA	BDL	BDL	BDL	BDL	NS	200.00
EDB	BDL	NA	NA	NA	BDL	NA	NA	NA	NA	BDL	BDL	NS	70.00
IPE	<b>8.00</b>	NA	NA	NA	BDL	NA	NA	NA	NA	BDL	BDL	NS	0.07
Total VOCs	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1,1-Dichloroethane	NA	BDL	BDL	NS	700.00								
Trichloroethene	NA	BDL	BDL	NS	2.80								
cis-, 1,2-Dichloroethylene	NA	BDL	BDL	NS	70.00								
Vinyl Chloride	NA	BDL	BDL	NS	0.02								
Total CVOCS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Lead	<0.005	NA	NA	NS	15.00								

BDL Indicates Below Detection Limit.

NA Indicates Not Analyzed.

NS Indicates Not Sampled.

Bold Indicates Concentration Above State 2L Standard.

Table 4. Summary of Groundwater Analytical Results

Nello Teer Quarry  
Durham County

## MW-23

Constituent	Date															2L Standard	
	4/28/94 <sup>(1)</sup>	8/30/94 <sup>(2)</sup>	1/26/95 <sup>(2)</sup>	4/27/95 <sup>(2)</sup>	8/30/95 <sup>(2)</sup>	3/14/96 <sup>(2)</sup>	10/9/96 <sup>(2)</sup>	12/2/97 <sup>(3)</sup>	5/13/98 <sup>(3)</sup>	6/17/99 <sup>(4)</sup>	12/10/99 <sup>(4)</sup>	12/7/00 <sup>(4)</sup>	06/13/01 <sup>(4)</sup>	12/28/02 <sup>(4)</sup>	06/04/02	09/12/02	
Benzene	21.00	68.40	36.00	67.90	58.90	56.40	69.70	42.00	23.00	37.10	14.3	28	11.6	37	5.30	4.30	1.00
Toluene	BDL	13.00	BDL	14.50	18.60	9.90	4.52	BDL	6.70	7.50	1.9	1.8	1.5	4.6	BDL	BDL	1000.00
Ethylbenzene	BDL	46.50	14.00	40.40	30.70	14.90	11.30	BDL	9.60	19.10	2.3	16.7	BDL	38.9	2.40	BDL	29.00
Xylenes	BDL	100.00	40.00	95.30	77.30	24.70	35.50	41.00	40.00	39.60	18	6.6	BDL	30.6	4.50	BDL	530.00
Naphthalene	BDL	33.70	42.50	42.90	19.10	32.00	11.70	BDL	9.10	12.00	BDL	BDL	BDL	24.70	NA	2.50	6.00
MTBE	BDL	NA	NA	NA	BDL	BDL	BDL	5.40	BDL	8.8	3.00	NA	7.20	BDL	BDL	200.00	
EDB	BDL	NA	NA	NA	BDL	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	70.00
IPE	15.00	NA	NA	NA	BDL	NA	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	9.80	BDL	0.07
Total VOCs	36.00	216.60	132.50	261.00	204.60	137.90	132.72	83.00	93.80	115.30	45.30	47.10	13.00	143.00	22.00	6.80	
1-Methylnaphthalene															8.90	NS	
2-Methylnaphthalene															3.00	28.00	
1,1-Dichloroethane	NA	BDL	BDL	BDL	BDL	BDL	700.00										
1,2-Dichloroethane	NA	BDL	BDL	BDL	BDL	BDL	0.38										
Trichloroethylene	NA	BDL	BDL	BDL	BDL	BDL	2.80										
cis-,1,2-Dichloroethylene	NA	BDL	BDL	BDL	BDL	BDL	70.00										
Vinyl Chloride	NA	BDL	BDL	BDL	BDL	BDL	0.02										
Total CVOCs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.30	0.00	1.00	1.30	0.00	0.00	0.00	
Lead	<0.005	NA	NA	NA	NA	NA	15.00										

## MW-24

Constituent	Date											2L Standard
	4/28/94 <sup>(1)</sup>	8/30/94 <sup>(2)</sup>	1/31/95 <sup>(2)</sup>	4/27/95 <sup>(2)</sup>	3/15/96 <sup>(2)</sup>	10/9/96 <sup>(2)</sup>	12/2/97 <sup>(3)</sup>	5/13/98 <sup>(3)</sup>	6/17/99 <sup>(4)</sup>	12/10/99 <sup>(4)</sup>		
Benzene	BDL	2.60	BDL	BDL	1.00							
Toluene	BDL	6.00	BDL	BDL	1000.00							
Ethylbenzene	BDL	29.00										
Xylenes	BDL	4.80	BDL	BDL	530.00							
Naphthalene	BDL	21.00										
MTBE	BDL	NA	NA	NA	NA	NA	1.20	1.80	BDL	BDL	200.00	
EDB	BDL	NA	BDL	BDL	70.00							
IPE	BDL	NA	BDL	BDL	0.07							
Total VOCs	0.00	0.00	0.00	0.00	0.00	1.20	15.20	0.00	0.00			
1,1-Dichloroethane	NA	BDL	700.00									
Trichloroethylene	NA	BDL	2.80									
cis-,1,2-Dichloroethylene	NA	BDL	70.00									
Vinyl Chloride	NA	BDL	0.02									
Total CVOCs	0.00	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00			
Lead	<0.005	NA	15.00									

BDL Indicates Below Detection Limit.

NA Indicates Not Analyzed.

NS Indicates Not Sampled.

Bold Indicates Concentration Above State 2L Standard.

Table 4. Summary of Groundwater Analytical Results

Nello Teer Quarry  
Durham County

## MW-25

Constituent	Date														2L Standard	
	8/30/94 <sup>(2)</sup>	1/31/95 <sup>(2)</sup>	4/27/95 <sup>(2)</sup>	8/29/95 <sup>(2)</sup>	3/14/96 <sup>(2)</sup>	10/9/96 <sup>(2)</sup>	12/2/97 <sup>(3)</sup>	5/13/98 <sup>(3)</sup>	6/17/99 <sup>(4)</sup>	12/10/99 <sup>(4)</sup>	6/8/00 <sup>(4)</sup>	12/7/00 <sup>(4)</sup>	6/15/01	12/28/01	06/04/02	09/12/02
Benzene	BDL	BDL	BDL	NA	NA	BDL	BDL 1.00									
Toluene	BDL	BDL	BDL	336.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	BDL	BDL 1000.00
Ethylbenzene	BDL	BDL	BDL	NA	NA	BDL	BDL 29.00									
Xylenes	BDL	BDL	BDL	NA	NA	BDL	BDL 530.00									
Naphthalene	BDL	BDL	2.2	BDL	BDL	BDL	NA	NA	BDL	BDL 21.00						
MTBE	NA	NA	NA	BDL	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	BDL	BDL 200.00
EDB	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	NA 70.00
IPE	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL 0.07
Total VOCs	0.0	0.0	2.2	336.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,1-Dichloroethane	840.0	690.0	632.0	1100.0	262.0	259.0	350.0	240.0	282.0	185.0	110.0	156.0	160.0	200.0	150.00	180.00
1,2-Dichloroethane	BDL	BDL	BDL	7.6	BDL	7.5	BDL	1.3	2.0	BDL	3.0	BDL	2.9	1.80	2.40	0.38
1,1-Dichloroethene	BDL	770.0	708.0	1270.0	618.0	501.0	390.0	340.0	204.0	280.0	80.0	282.0	100.0	234.0	120.00	220.00
Trichloroethylene	280.0	125.0	267.0	232.0	152.0	206.0	81.0	BDL	98.0	110.0	64.3	90.0	34.7	77.4	46.00	49.00
1,1,1-Trichloroethane	BDL	1710.0	2709.0	3920.0	1440.0	2080.0	620.0	1000.0	358.0	725.0	465.0	342.0	365.0	354.0	220.00	270.00
1,1,2-Trichloroethane	BDL	BDL	BDL	BDL	BDL	3.7	6.6	BDL	BDL	2.2	BDL	2.1	BDL	1.5	1.30	BDL 1.00
Trichlorofluoromethane	BDL	BDL	BDL	BDL	BDL	BDL	5.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2100.00
Tetrachloroethene	BDL	BDL	BDL	BDL	BDL	BDL	1.4	BDL	BDL	2.5	BDL	BDL	BDL	BDL	BDL	0.70
cis-1,2-Dichloroethylene	330.0	470.0	319.0	429.0	164.0	BDL	BDL	151.0	32.0	81.5	84.0	BDL	92.5	BDL	BDL	70.00
Vinyl Chloride	BDL	BDL	BDL	126.0	85.6	48.9	BDL	30.0	BDL	33.2	13.2	29.7	19.1	29.7	18.00	24.00
Chloroethane	BDL	BDL	BDL	BDL	BDL	8.7	4.3	BDL	BDL	8.2	BDL	4.4	4.1	3.9	23.00	4.90
Carbon Tetrachloride	BDL	BDL	BDL	BDL	192.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.30
1,1,2,2 Tetrachloroethane	BDL	1.0	1.0	1.8	BDL	BDL	BDL	1.00								
Total CVOCs	1450.0	3765.0	4635.0	7077.0	2921.2	3107.3	1466.0	1610.0	1094.3	1381.1	815.0	995.0	682.9	995.9	580.1	750.3
Lead	NA	NA	NA	NA	NA	NA	15.00									

## MW-26

Constituent	Date														2L Standard	
	8/29/94 <sup>(2)</sup>	1/26/95 <sup>(2)</sup>	4/27/95 <sup>(2)</sup>	8/29/95 <sup>(2)</sup>	3/13/96 <sup>(2)</sup>	10/9/96 <sup>(2)</sup>	12/2/97 <sup>(3)</sup>	5/13/98 <sup>(3)</sup>	6/17/99 <sup>(4)</sup>	12/10/99 <sup>(4)</sup>	6/7/00 <sup>(4)</sup>	12/7/00 <sup>(4)</sup>	6/15/01	1/2/02	06/04/02	09/12/02
Benzene	BDL	BDL	BDL	NS	NA	BDL	BDL 1.00									
Toluene	BDL	BDL	BDL	NS	NA	BDL	BDL 1000.00									
Ethylbenzene	BDL	BDL	BDL	NS	NA	BDL	BDL 29.00									
Xylenes	BDL	BDL	BDL	NS	NA	BDL	BDL 530.00									
Naphthalene	BDL	42.5	BDL	BDL	BDL	NS	NA	NA	BDL 21.00							
MTBE	NA	NA	NA	BDL	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	NS	NA	BDL	BDL 200.00
EDB	NA	NA	NA	BDL	NA	NA	BDL	NA	BDL	BDL	BDL	BDL	NS	NA	NA	70.00
IPE	NA	NA	NA	BDL	NA	NA	BDL	NA	BDL	BDL	BDL	BDL	NS	NA	BDL	BDL 0.07
Total VOCs	0.0	42.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	NA	0.00	0.00
1,1-Dichloroethane	BDL	100.0	109.0	85.4	BDL	54.3	13.0	5.6	3.6	2.4	BDL	NS	1.0	1.8	2.00	2.80
1,1-Dichloroethene	BDL	BDL	8.1	10.7	13.6	7.2	5.2	3.6	4.2	5.1	BDL	NS	BDL	BDL	1.20	1.80
Trichloroethylene	BDL	BDL	BDL	NS	BDL	BDL	2.80									
cis-1,2-Dichloroethylene	BDL	BDL	4.9	5.8	8.3	BDL	BDL	BDL	5.8	5.8	BDL	NS	BDL	2.7	BDL	BDL 70.00
Vinyl Chloride	29.5	BDL	BDL	44.8	56.6	20.1	12.0	6.9	7.0	6.0	BDL	NS	BDL	BDL	BDL	0.02
Total CVOCs	29.5	100.0	122.0	146.7	78.5	81.6	30.2	16.1	20.6	19.3	0.0	1.0	4.5	3.2	4.6	
Lead	NA	NA	NS	NS	NA	NA	15.00									

BDL Indicates Below Detection Limit.

NA Indicates Not Analyzed.

NS Indicates Not Sampled.

Bold Indicates Concentration Above State 2L Standard.

Table 4. Summary of Groundwater Analytical Results  
 Nello Teer Quarry  
 Durham County

**MW-27**

Constituent	Date	2L Standard
	9/9/93 <sup>(1)</sup>	8/29/94 <sup>(2)</sup>
Benzene	BDL	1.00
Toluene	BDL	1000
Ethylbenzene	BDL	29
Xylenes	BDL	530
Naphthalene	BDL	21
MTBE	BDL	200
EDB	BDL	70
IPE	BDL	0.07
Total PAH	0.00	NA
1,1-Dichloroethane	BDL	700
Trichloroethene	BDL	2.8
cis-,1,2-Dichloroethylene	BDL	70
Vinyl Chloride	BDL	0.02
Total CVOCs	0.00	0.00
Lead	0.05	NA
		15

**MW-28D**

Constituent	Date	2L Standard
	09/12/02	
Benzene	BDL	1.00
Toluene	5.3	1000.00
Ethylbenzene	BDL	29.00
Xylenes	BDL	530.00
Naphthalene	BDL	21.00
MTBE	BDL	200.00
EDB	NA	70.00
IPE	BDL	0.07
Total VOCs	5.3	
1,1-Dichloroethane	9.70	700.00
1,1-Dichloroethene	5.50	7.00
Trichloroethene	1.3	2.80
cis-,1,2-Dichloroethylene	BDL	70.00
Vinyl Chloride	BDL	0.02
Total CVOCs	16.5	
Lead	NA	15.00

(3) = EPA Methods 601/602/610 as sampled by Quantum; analyzed by Pace Laboratories

(4) = EPA Methods 601/602/610 as sampled by Quantum; analyzed by Test America

(\*) = Summation of All Fractions of Detected VOCs including naphthalene.

data/123files/13/139412/allgwdata.xls

BDL Indicates Below Detection Limit.

NA Indicates Not Analyzed.

NS Indicates Not Sampled.

Bold Indicates Concentration Above State 2L Standard.

**Table 5: Nello Teer Recovery Well Sampling Results**

Constituent	Date									2L Standard
	8/29/99	2/25/00	6/14/00	9/8/00	12/7/00	6/15/01	12/28/01	6/6/02	9/13/02	
Benzene	<b>6.80</b>	BDL	<b>1.20</b>	BDL	BDL	BDL	BDL	BDL	BDL	1.00
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1000.00
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	29.00
Xylenes	BDL	BDL	1.10	BDL	BDL	BDL	BDL	BDL	BDL	530.00
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	BDL	21.00
MTBE	BDL	BDL	BDL	1.80	BDL	BDL	1.70	BDL	BDL	200.00
EDB	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	70.00
IPE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.07
Total VOCs	0.00	0.00	2.30	1.80	0.00	0.00	0.00	0.00	0.00	
1,1-Dichloroethane	BDL	7.40	BDL	2.90	12.50	5.10	6.20	BDL	3.40	700.00
1,1 Dichloroethene	BDL	BDL	1.50	1.60	5.40	1.30	2.40	1.70	2.00	7.00
1,2 Dichloroethane	BDL	BDL	<b>3.00</b>	BDL	BDL	BDL	BDL	BDL	BDL	0.38
Trichloroethene	BDL	2.20	BDL	<b>3.20</b>	<b>3.60</b>	<b>4.80</b>	<b>6.00</b>	<b>3.50</b>	<b>4.00</b>	2.80
1,1,1 Trichloroethane	BDL	3.40	BDL	1.00	2.80	BDL	BDL	BDL	BDL	200.00
cis-,1,2-Dichloroethylene	BDL	2.20	1.80	3.10	3.30	8.40	10.80	NA	NA	70.00
Chloroethane	BDL	BDL	<b>2.90</b>	BDL	BDL	BDL	BDL	BDL	BDL	2800.00
Vinyl Chloride	BDL	BDL	BDL	BDL	BDL	<b>2.80</b>	<b>2.60</b>	BDL	BDL	0.02
Total CVOCs	0.00	15.20	9.20	11.80	27.60	24.90	28.00	5.20	9.40	
1-Methylnaphthalene	BDL	NA	NA	NA	NA	NA	NA	NA	NA	MDL
2-Methylnaphthalene	BDL	NA	NA	NA	NA	NA	NA	NA	NA	MDL
Phenanthrene	BDL	NA	NA	NA	NA	NA	NA	NA	BDL	210.00
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	15.00

All Results in ug/l.

NA Indicates Not Analyzed.

BDL Indicates Below Detection Limit.

Bold Indicates Concentration Above State 2L Standard.

NS Indicates Well Not Sampled.

**Table 5: Nello Teer Recovery Well Sampling Results**

**RW-2 (formerly MW-2)**

Constituent	Date								2L Standard
	5/7/93	5/20/93	8/29/94	8/29/99	6/14/00	1/23/01	10/26/01	6/6/02	
Benzene	<b>575.00</b>	<b>353.00</b>	<b>95.00</b>	BDL	BDL	<b>1.60</b>	BDL	BDL	BDL 1.00
Toluene	<b>1160.00</b>	418.00	19.00	BDL	1.70	BDL	BDL	BDL	BDL 1000.00
Ethylbenzene	<b>84.40</b>	BDL	<b>62.00</b>	BDL	1.00	2.40	BDL	BDL	BDL 29.00
Xylenes	<b>1425.00</b>	106.00	61.00	BDL	13.00	1.10	BDL	BDL	BDL 530.00
Naphthalene	NA	NA	2.78	BDL	BDL	BDL	NA	NA	BDL 21.00
MTBE	NA	BDL	NA	BDL	BDL	BDL	3.00	BDL	BDL 200.00
EDB	NA	BDL	NA	BDL	BDL	BDL	BDL	NA	NA 70.00
IPE	NA	BDL	NA	BDL	BDL	BDL	BDL	BDL	BDL 0.07
Total VOCs	3244.40	877.00	239.80	0.00	15.70	5.10	3.00	0.00	0.00
1,1-Dichloroethane	NA	BDL	BDL	BDL	BDL	NA	BDL	NA	700.00
1,1 Dichloroethene	NA	NA	NA	BDL	BDL	BDL	NA	BDL	NA 7.00
Trichloroethene	NA	BDL	BDL	BDL	BDL	BDL	NA	BDL	NA 2.80
1,1,1 Trichloroethane	NA	NA	NA	BDL	BDL	BDL	NA	BDL	NA 200.00
cis-,1,2-Dichloroethene	NA	NA	<b>90.00</b>	BDL	6.50	2.60	NA	NA	NA 70.00
Chloroethane	NA	NA	NA	BDL	BDL	BDL	NA	BDL	NA 2800.00
Vinyl Chloride	NA	BDL	BDL	BDL	BDL	BDL	NA	BDL	NA 0.02
Total CVOCs	0.00	0.00	90.00	0.00	6.50	3.80	NA	0.00	NA
1-Methylnaphthalene	NA	NA	NA	BDL	BDL	BDL	NA	NA	NA MDL
Phenanthrene	NA	NA	NA	BDL	BDL	BDL	NA	NA	BDL 210.00
Lead	<0.05	0.20	NA	NA	NA	NA	NA	NA	NA 15.00

All Results in ug/l.

NA Indicates Not Analyzed.

BDL Indicates Below Detection Limit.

Bold Indicates Concentration Above State 2L Standard.

NS Indicates Well Not Sampled.

**Table 5: Nello Teer Recovery Well Sampling Results**

Constituent	Date								2L Standard
	8/29/99	2/25/00	6/14/00	12/7/00	6/15/01	12/28/01	6/4/02	9/12/02	
Benzene	<b>25.50</b>	BDL	<b>7.60</b>	<b>9.70</b>	<b>16.80</b>	<b>10.30</b>	<b>13.00</b>	BDL	1.00
Toluene	21.50	BDL	3.60	2.90	11.00	2.60	5.90	BDL	1000.00
Ethylbenzene	22.50	BDL	3.30	1.80	19.30	6.10	11.00	BDL	29.00
Xylenes	270.00	BDL	16.40	13.20	45.20	6.30	20.80	BDL	530.00
Naphthalene	11.00	BDL	8.00	7.00	BDL	<b>27.40</b>	NA	6.50	6.00
MTBE	11.50	BDL	BDL	BDL	NS	7.10	BDL	BDL	200.00
EDB	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	70.00
IPE	BDL	BDL	BDL	BDL	BDL	NS	<b>12.00</b>	BDL	0.07
Total VOCs	362.00	0.00	38.90	34.60	92.30	59.80	62.70	6.50	
1,1-Dichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	700.00
1,1 Dichloroethene	BDL	BDL	1.60	BDL	BDL	BDL	BDL	BDL	7.00
Trichloroethene	BDL	BDL	1.00	BDL	BDL	BDL	BDL	BDL	2.80
1,1,1 Trichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	200.00
cis-,1,2-Dichloroethylene	BDL	BDL	2.70	BDL	1.40	BDL	NA	BDL	70.00
Chloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2800.00
Vinyl Chloride	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.02
Total CVOCs	0.00	0.00	5.30	0.00	1.40	BDL	0.00	0.00	
1-Methylnaphthalene	<b>44.00</b>	NA	NA	BDL	BDL	BDL	NA	<b>43.00</b>	NS
2-Methylnaphthalene	<b>38.00</b>	NA	NA	BDL	BDL	BDL	NA	9.90	28.00
Phenanthrene	12.00	NA	NA	24.00	2.60	BDL	NA	24.00	210.00
Fluorene	NA	NA	NA	NA	NA	NA	NA	12.00	280.00
Pyrene	NA	NA	NA	NA	NA	NA	NA	4.40	210.00
Lead	NA	NA	NA	NA	NA	NA	NA	NA	15.00

All Results in ug/l.

NA Indicates Not Analyzed.

BDL Indicates Below Detection Limit.

Bold Indicates Concentration Above State 2L Standard.

NS Indicates Well Not Sampled.

**Table 5: Nello Teer Recovery Well Sampling Results**

Constituent	Date								2L Standard
	8/29/99	3/8/00	5/3/00	6/14/00	12/7/00	6/15/01	12/28/01	6/6/02	
Benzene	BDL	BDL	<b>5.00</b>	<b>1.80</b>	<b>3.10</b>	BDL	BDL	<b>1.10</b>	BDL 1.00
Toluene	BDL	BDL	3.00	3.00	BDL	BDL	BDL	BDL	1000.00
Ethylbenzene	BDL	BDL	4.00	4.00	BDL	BDL	BDL	BDL	29.00
Xylenes	BDL	BDL	2.00	2.00	BDL	BDL	BDL	BDL	530.00
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	21.00
MTBE	BDL	BDL	5.00	NA	2.20	NA	1.20	BDL	BDL 200.00
EDB	BDL	BDL	NA	BDL	BDL	BDL	NA	NA	70.00
IPE	BDL	BDL	NA	NA	NA	NA	NA	BDL	BDL 0.07
Total VOCs	0.00	0.00	19.00	10.80	5.30	0.00	1.20	1.10	0.00
1,1-Dichloroethane	BDL	BDL	NA	BDL	BDL	BDL	BDL	4.00	700.00
1,1 Dichloroethene	BDL	BDL	NA	1.70	BDL	BDL	BDL	BDL	7.00
Trichloroethene	BDL	BDL	NA	NA	NA	BDL	BDL	BDL	2.80
1,1,1 Trichloroethane	BDL	BDL	NA	NA	NA	BDL	BDL	BDL	200.00
cis-,1,2-Dichloroethylene	BDL	BDL	NA	2.80	3.10	BDL	BDL	NA	70.00
Chloroethane	BDL	BDL	NA	NA	NA	BDL	BDL	BDL	2800.00
Vinyl Chloride	BDL	BDL	NA	<b>2.00</b>	<b>1.20</b>	BDL	BDL	BDL	BDL 0.02
Total CVOCs	0.00	0.00	NA	6.50	4.30	0.00	0.00	0.00	4.00
1-Methylnaphthalene	BDL	NA	NA	NA	NA	NA	NA	NA	MDL
2-Methylnaphthalene	BDL	NA	NA	NA	NA	NA	NA	NA	MDL
Phenanthrene	BDL	NA	NA	NA	NA	NA	NA	NA	210.00
Lead	NA	NA	NA	NA	NA	NA	NA	NA	15.00

All Results in ug/l.

NA Indicates Not Analyzed.

BDL Indicates Below Detection Limit.

Bold Indicates Concentration Above State 2L Standard.

NS Indicates Well Not Sampled.

**Table 5: Nello Teer Recovery Well Sampling Results**

Constituent	Date								2L Standard
	8/29/99	2/25/00	6/14/00	12/7/00	6/15/01	12/27/01	6/4/02	9/12/02	
Benzene	BDL	BDL	BDL	NS	NA	NA	BDL	NA	1.00
Toluene	BDL	BDL	BDL	NS	NA	NA	BDL	NA	1000.00
Ethylbenzene	BDL	BDL	BDL	NS	NA	NA	BDL	NA	29.00
Xylenes	BDL	BDL	BDL	NS	NA	NA	BDL	NA	530.00
Naphthalene	BDL	BDL	BDL	NS	NA	NA	NA	NA	21.00
MTBE	BDL	BDL	BDL	NS	NA	NA	BDL	NA	200.00
EDB	BDL	BDL	BDL	NS	NA	NA	NA	NA	70.00
IPE	BDL	BDL	BDL	NS	NA	NA	BDL	NA	0.07
Total VOCs	0.00	0.00	0.00	NS	NA	NA	0.00	0.00	
1,1-Dichloroethane	202.00	118.50	50.00	NS	100.00	98.20	96.00	150.00	700.00
1,2-Dichloroethane							1.00	1.60	0.38
1,1 Dichloroethene	<b>260.00</b>	BDL	<b>170.00</b>	NS	<b>62.00</b>	<b>88.80</b>	<b>85.00</b>	<b>170.00</b>	7.00
Trichloroethene	<b>67.20</b>	BDL	<b>65.60</b>	NS	<b>34.40</b>	<b>40.90</b>	<b>38.00</b>	<b>39.00</b>	2.80
1,1,1 Trichloroethane	<b>518.00</b>	BDL	<b>265.00</b>	NS	198.00	<b>250.00</b>	<b>220.00</b>	<b>250.00</b>	200.00
cis-,1,2-Dichloroethylene	<b>93.60</b>	63.40	<b>72.40</b>	NS	48.20	53.40	NA	NA	70.00
1,1,2,2-Tetrachloroethane	BDL	BDL	<b>1.40</b>	NS	BDL	BDL	BDL	BDL	MDL
1,1,2-Trichloroethane	BDL	BDL	<b>1.60</b>	NS	BDL	BDL	BDL	BDL	MDL
Chloroethane	7.00	5.00	6.00	NS	4.40	1.40	2.40	4.40	2800.00
Vinyl Chloride	<b>30.70</b>	<b>20.00</b>	<b>24.60</b>	NS	<b>12.60</b>	<b>4.70</b>	BDL	<b>27.00</b>	0.02
Total CVOCs	1178.50	206.90	656.60		474.50	539.50	442.40	642.00	
1-Methylnaphthalene	BDL	NA	NA	NA	NA	NA	NA	NA	MDL
2-Methylnaphthalene	BDL	NA	NA	NA	NA	NA	NA	NA	MDL
Phenanthrene	BDL	NA	NA	NA	NA	NA	NA	BDL	210.00
Lead	NA	NA	NA	NA	NA	NA	NA	NA	15.00

All Results in ug/l.

NA Indicates Not Analyzed.

BDL Indicates Below Detection Limit.

Bold Indicates Concentration Above State 2L Standard.

NS Indicates Well Not Sampled.

**Table 5: Nello Teer Recovery Well Sampling Results**

Constituent	Date						2L Standard
	10/4/99	12/17/99	6/14/00	12/7/00	6/15/01	12/29/01	
Benzene	BDL	<b>2.20</b>	BDL	BDL	NA	NA	1.00
Toluene	BDL	BDL	BDL	BDL	NA	NA	1000.00
Ethylbenzene	BDL	BDL	BDL	BDL	NA	NA	29.00
Xylenes	BDL	BDL	BDL	BDL	NA	NA	530.00
Naphthalene	BDL	BDL	BDL	BDL	NA	NA	21.00
MTBE	BDL	2.10	BDL	BDL	NA	NA	200.00
EDB	BDL	BDL	BDL	BDL	NA	NA	70.00
IPE	BDL	BDL	BDL	BDL	NA	NA	0.07
Total VOCs	0.00	4.30	0.00	0.00	NA	NA	
Fluorene	BDL	5.00	BDL	NA	NA	NA	280.00
Phenanthrene	BDL	4.00	BDL	NA	NA	NA	210.00
1,1-Dichloroethane	14.70	7.80	5.80	5.00	2.10	4.10	700.00
1,1 Dichloroethene	<b>26.80</b>	4.90	<b>8.60</b>	1.90	1.40	4.80	7.00
Trichloroethene	<b>10.90</b>	<b>3.20</b>	BDL	1.80	1.10	<b>3.20</b>	2.80
1,1,1 Trichloroethane	53.20	4.00	15.50	7.20	4.90	17.50	200.00
cis-,1,2-Dichloroethene	6.80	6.80	BDL	BDL	BDL	1.80	70.00
Chloroethane	BDL	BDL	<b>5.20</b>	BDL	BDL	BDL	MDL
Vinyl Chloride	<b>3.10</b>	BDL	<b>1.90</b>	BDL	BDL	BDL	0.02
Total CVOCs	115.50	26.70	37.00	15.90	9.50	31.40	
Phenanthrene	BDL	BDL	BDL	BDL	BDL	BDL	210.00
Lead	NA	NA	NA	NA	NA	NA	15.00

All Results in ug/l.

NA Indicates Not Analyzed.

BDL Indicates Below Detection Limit.

Bold Indicates Concentration Above State 2L Standard.

NS Indicates Well Not Sampled.

**Table 5: Nello Teer Recovery Well Sampling Results**

Constituent	Date								2L Standard	
	10/4/99	6/14/00	6/23/00	7/6/00	12/7/00	6/15/01	12/28/01	6/6/02		
Benzene	BDL	BDL	BDL	<b>9.50</b>	BDL	NA	NA	BDL	NA	1.00
Toluene	BDL	BDL	BDL	4.00	BDL	NA	NA	BDL	NA	1000.00
Ethylbenzene	BDL	BDL	BDL	1.40	BDL	NA	NA	BDL	NA	29.00
Xylenes	BDL	BDL	BDL	10.60	BDL	NA	NA	BDL	NA	530.00
Naphthalene	BDL	BDL	<b>144.00</b>	BDL	BDL	NA	NA	NA	BDL	21.00
MTBE	BDL	BDL	BDL	2.80	BDL	NA	NA	BDL	NA	200.00
EDB	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	70.00
IPE	BDL	BDL	BDL	BDL	BDL	NA	NA	BDL	NA	0.07
Total VOCs	0.00	0.00	224.00	28.30	0.00	NA	NA	0.00	NA	
1,1-Dichloroethane	10.00	1.70	BDL	2.40	BDL	BDL	1.70	1.50	3.10	700.00
1,1 Dichloroethene	1.60	1.90	BDL	BDL	BDL	BDL	BDL	BDL	BDL	7.00
Trichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.80
1,1,1 Trichloroethane	BDL	BDL	BDL	2.60	BDL	BDL	1.70	BDL	BDL	200.00
cis-,1,2-Dichloroethylene	3.80	1.90	BDL	2.20	BDL	BDL	1.20	NA	BDL	70.00
Chloroethane	BDL	BDL	BDL	<b>1.60</b>	BDL	BDL	BDL	BDL	BDL	MDL
Vinyl Chloride	<b>6.00</b>	<b>3.90</b>	BDL	BDL	BDL	<b>1.00</b>	BDL	BDL	BDL	0.02
Total CVOCs	21.40	9.40	0.00	8.80	0.00	1.00	4.60	1.50	3.10	
Lead	NA	NA	BDL	NA	NA	NA	NA	NA	NA	15.00

All Results in ug/l.

NA Indicates Not Analyzed.

BDL Indicates Below Detection Limit.

Bold Indicates Concentration Above State 2L Standard.

NS Indicates Well Not Sampled.

**Table 5: Nello Teer Recovery Well Sampling Results**

Constituent	Date						2L Standard
	6/14/00	12/7/00	6/15/00	12/28/01	6/4/02	9/12/02	
Benzene	<b>10.10</b>	BDL	BDL	NS	BDL	BDL	1.00
Toluene	1.20	BDL	BDL	NS	BDL	BDL	1000.00
Ethylbenzene	3.10	BDL	BDL	NS	13.00	BDL	29.00
Xylenes	4.90	BDL	BDL	NS	BDL	BDL	530.00
Naphthalene	BDL	BDL	BDL	NS	NA	BDL	21.00
MTBE	BDL	2.50	BDL	NS	BDL	BDL	200.00
EDB	BDL	BDL	BDL	NS	NA	NA	70.00
IPE	BDL	BDL	BDL		BDL	<b>8.80</b>	0.07
Total VOCs	19.30	2.50	0.00		13.00	8.80	
Fluorene	BDL	BDL	BDL		BDL	BDL	280.00
Phenanthrene	BDL	BDL	BDL		BDL	BDL	210.00
1,1-Dichloroethane	BDL	BDL	BDL		BDL	NA	700.00
1,1 Dichloroethene	BDL	BDL	BDL		BDL	NA	7.00
Trichloroethene	BDL	BDL	BDL		BDL	NA	2.80
1,1,1 Trichloroethane	BDL	BDL	BDL		BDL	NA	200.00
cis-,1,2-Dichloroethene	BDL	BDL	BDL		NA	NA	70.00
Chloroethane	BDL	BDL	BDL		BDL	NA	MDL
Vinyl Chloride	BDL	BDL	BDL		BDL	NA	0.02
Total CVOCs	0.00	0.00	0.00		0.00	0.00	
Phenanthrene	BDL	BDL	BDL		NA	BDL	210.00
Lead	NA	NA	NA		NA	NA	15.00

All Results in ug/l.

NA Indicates Not Analyzed.

BDL Indicates Below Detection Limit.

Bold Indicates Concentration Above State 2L Standard.

NS Indicates Well Not Sampled.

**Table 5: Nello Teer Recovery Well Sampling Results**

Constituent	Date								2L Standard
	5/19/00	6/14/00	9/8/00	12/7/00	6/15/01	12/27/01	6/6/02	9/12/02	
Benzene	BDL	BDL	BDL	BDL	NA	NA	BDL	BDL	1.00
Toluene	BDL	BDL	BDL	BDL	NA	NA	BDL	BDL	1000.00
Ethylbenzene	BDL	BDL	BDL	BDL	NA	NA	BDL	BDL	29.00
Xylenes	BDL	BDL	BDL	BDL	NA	NA	BDL	BDL	530.00
Naphthalene	BDL	BDL	BDL	BDL	NA	NA	NA	NA	21.00
MTBE	BDL	BDL	BDL	BDL	NA	NA	BDL	BDL	200.00
EDB	BDL	BDL	BDL	BDL	NA	NA	NA	NA	70.00
IPE	BDL	BDL	BDL	BDL	NA	NA	BDL	BDL	0.07
Total VOCs	0.00	0.00	0.00	0.00	NA	NA	0.00	0.00	
1,1-Dichloroethane	84.50	75.60	33.00	84.20	78.60	180.00	130.00	120.00	700.00
1,1 Dichloroethene	<b>75.10</b>	<b>64.20</b>	<b>38.50</b>	<b>83.40</b>	<b>78.60</b>	<b>102.00</b>	<b>71.00</b>	<b>81.00</b>	7.00
Trichloroethene	<b>16.00</b>	<b>15.00</b>	<b>4.60</b>	<b>17.50</b>	<b>21.70</b>	<b>26.00</b>	<b>13.00</b>	<b>12.00</b>	2.80
1,1,1 Trichloroethane	50.60	40.20	16.30	37.60	38.90	65.00	31.00	27.00	200.00
cis-,1,2-Dichloroethylene	26.80	23.70	11.00	28.00	21.70	42.00	NA	NA	70.00
Chloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	MDL
Vinyl Chloride	<b>8.50</b>	<b>9.30</b>	<b>1.30</b>	<b>15.10</b>	<b>14.20</b>	<b>12.00</b>	<b>8.40</b>	<b>8.20</b>	0.02
Total CVOCs	261.50	228.00	104.70	265.80	253.70	427.00	253.40	248.20	
Lead	NA	NA	NA	NA	NA	NA	NA	NA	15.00

123 files/13/139412/9412rwax.xls

All Results in ug/l.

NA Indicates Not Analyzed.

BDL Indicates Below Detection Limit.

Bold Indicates Concentration Above State 2L Standard.

NS Indicates Well Not Sampled.

Appendix A

**Appendix A  
Laboratory Analytical Results  
and  
Chain of Custody**



**ENVIRONMENTAL  
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12065 Lebanon Rd.  
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Tax I.D. 62-0814289

Est. 1970

**REPORT OF ANALYSIS**

Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

October 07, 2002

Date Received : September 13, 2002  
Description : Nello Teer  
Sample ID : MW-1  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 13:10

ESC Sample # : L89376-01  
Site ID : 0013-94-012  
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
<b>Volatile Organics</b>						
Benzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Bromodichloromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Bromoform	BDL	1.0	ug/l	601/602MS	09/19/02	1
Bromomethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Carbon Tetrachloride	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chlorodibromomethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601/602MS	09/19/02	1
Chloroform	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chloromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dibromoethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,1-Dichloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dichloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,1-Dichloroethene	BDL	1.0	ug/l	601/602MS	09/19/02	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dichloropropane	BDL	1.0	ug/l	601/602MS	09/19/02	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601/602MS	09/19/02	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Di-isopropyl ether	BDL	5.0	ug/l	601/602MS	09/19/02	1
Ethylbenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Methylene chloride	BDL	5.0	ug/l	601/602MS	09/19/02	1
Methyl tert-butyl ether	BDL	5.0	ug/l	601/602MS	09/19/02	1
Naphthalene	BDL	5.0	ug/l	601/602MS	09/19/02	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Tetrachloroethene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Trichloroethene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Trichlorofluoromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Toluene	BDL	5.0	ug/l	601/602MS	09/19/02	1
Vinyl chloride	BDL	1.0	ug/l	601/602MS	09/19/02	1
o-Xylene	BDL	1.0	ug/l	601/602MS	09/19/02	1
m&p-Xylene	BDL	2.0	ug/l	601/602MS	09/19/02	1

Cheli Boucher  
Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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Tax I.D. 62-0814289  
Est. 1970

**REPORT OF ANALYSIS**

Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

October 07, 2002

Date Received : September 13, 2002  
Description : Nello Teer  
Sample ID : MW-7  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 11:25

ESC Sample # : L89376-02  
Site ID : 0013-94-012  
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
<b>Volatile Organics</b>						
Benzene	BDL	1.0	ug/l	601/602MS	09/18/02	1
Bromodichloromethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
Bromoform	BDL	1.0	ug/l	601/602MS	09/18/02	1
Bromomethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
Carbon Tetrachloride	BDL	1.0	ug/l	601/602MS	09/18/02	1
Chlorobenzene	BDL	1.0	ug/l	601/602MS	09/18/02	1
Chlorodibromomethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
Chloroethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601/602MS	09/18/02	1
Chloroform	BDL	1.0	ug/l	601/602MS	09/18/02	1
Chloromethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,2-Dibromoethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/18/02	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,1-Dichloroethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,2-Dichloroethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,1-Dichloroethene	BDL	1.0	ug/l	601/602MS	09/18/02	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,2-Dichloropropane	BDL	1.0	ug/l	601/602MS	09/18/02	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601/602MS	09/18/02	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601/602MS	09/18/02	1
Di-isopropyl ether	BDL	5.0	ug/l	601/602MS	09/18/02	1
Ethylbenzene	BDL	1.0	ug/l	601/602MS	09/18/02	1
Methylene chloride	BDL	5.0	ug/l	601/602MS	09/18/02	1
Methyl tert-butyl ether	BDL	5.0	ug/l	601/602MS	09/18/02	1
Naphthalene	BDL	5.0	ug/l	601/602MS	09/18/02	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
Tetrachloroethene	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
Trichloroethene	BDL	1.0	ug/l	601/602MS	09/18/02	1
Trichlorofluoromethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
Toluene	BDL	5.0	ug/l	601/602MS	09/18/02	1
Vinyl chloride	BDL	1.0	ug/l	601/602MS	09/18/02	1
o-Xylene	BDL	1.0	ug/l	601/602MS	09/18/02	1
m&p-Xylene	BDL	2.0	ug/l	601/602MS	09/18/02	1

Cheli Boucher

Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01 KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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Est. 1970

**REPORT OF ANALYSIS**

October 07, 2002

Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

Date Received : September 13, 2002  
Description : Nello Teer  
Sample ID : MW-9  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 10:10

ESC Sample # : L89376-03  
Site ID : 0013-94-012  
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
<b>Volatile Organics</b>						
Benzene	BDL	1.0	ug/l	601/602MS	09/18/02	1
Bromodichloromethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
Bromoform	BDL	1.0	ug/l	601/602MS	09/18/02	1
Bromomethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
Carbon Tetrachloride	BDL	1.0	ug/l	601/602MS	09/18/02	1
Chlorobenzene	BDL	1.0	ug/l	601/602MS	09/18/02	1
Chlorodibromomethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
Chloroethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601/602MS	09/18/02	1
Chloroform	BDL	1.0	ug/l	601/602MS	09/18/02	1
Chloromethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,2-Dibromoethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/18/02	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,1-Dichloroethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,2-Dichloroethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,1-Dichloroethene	BDL	1.0	ug/l	601/602MS	09/18/02	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,2-Dichloropropane	BDL	1.0	ug/l	601/602MS	09/18/02	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601/602MS	09/18/02	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601/602MS	09/18/02	1
Di-isopropyl ether	BDL	5.0	ug/l	601/602MS	09/18/02	1
Ethylbenzene	BDL	1.0	ug/l	601/602MS	09/18/02	1
Methylene chloride	BDL	5.0	ug/l	601/602MS	09/18/02	1
Methyl tert-butyl ether	BDL	5.0	ug/l	601/602MS	09/18/02	1
Naphthalene	BDL	5.0	ug/l	601/602MS	09/18/02	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
Tetrachloroethene	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
Trichloroethene	BDL	1.0	ug/l	601/602MS	09/18/02	1
Trichlorofluoromethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
Toluene	BDL	5.0	ug/l	601/602MS	09/18/02	1
Vinyl chloride	BDL	1.0	ug/l	601/602MS	09/18/02	1
o-Xylene	BDL	1.0	ug/l	601/602MS	09/18/02	1
m&p-Xylene	BDL	2.0	ug/l	601/602MS	09/18/02	1

Cheli Boucher  
Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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Est. 1970

**REPORT OF ANALYSIS**

Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

October 07, 2002

Date Received : September 13, 2002  
Description : Nello Teer  
Sample ID : MW-11  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 10:45

ESC Sample # : L89376-04  
Site ID : 0013-94-012  
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
<b>Volatile Organics</b>						
Bromodichloromethane	BDL	1.0	ug/l	601MS	09/18/02	1
Bromoform	BDL	1.0	ug/l	601MS	09/18/02	1
Bromomethane	BDL	1.0	ug/l	601MS	09/18/02	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	09/18/02	1
Chlorobenzene	BDL	1.0	ug/l	601MS	09/18/02	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	09/18/02	1
Chloroethane	BDL	1.0	ug/l	601MS	09/18/02	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	09/18/02	1
Chloroform	BDL	1.0	ug/l	601MS	09/18/02	1
Chloromethane	BDL	1.0	ug/l	601MS	09/18/02	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	09/18/02	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	09/18/02	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	09/18/02	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	09/18/02	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	09/18/02	1
1,1-Dichloroethane	BDL	1.0	ug/l	601MS	09/18/02	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	09/18/02	1
1,1-Dichloroethene	BDL	1.0	ug/l	601MS	09/18/02	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	09/18/02	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	09/18/02	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	09/18/02	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	09/18/02	1
Methylene chloride	BDL	5.0	ug/l	601MS	09/18/02	1
Naphthalene	BDL	5.0	ug/l	601MS	09/18/02	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	09/18/02	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	09/18/02	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601MS	09/18/02	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	09/18/02	1
Trichloroethene	BDL	1.0	ug/l	601MS	09/18/02	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	09/18/02	1
Vinyl chloride	BDL	1.0	ug/l	601MS	09/18/02	1

BDL - Below Detection Limit  
Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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*Cheli Boucher*  
Cheli Boucher, ESC Representative



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SCIENCE CORP.**

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Est. 1970

**REPORT OF ANALYSIS**

Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

October 07, 2002

Date Received : September 13, 2002  
Description : Nello Teer  
Sample ID : MW-13  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 13:50

ESC Sample # : L89376-05  
Site ID : 0013-94-012  
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
<b>Volatile Organics</b>						
Benzene	BDL	1.0	ug/l	601/602MS	09/18/02	1
Bromodichloromethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
Bromoform	BDL	1.0	ug/l	601/602MS	09/18/02	1
Bromomethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
Carbon Tetrachloride	BDL	1.0	ug/l	601/602MS	09/18/02	1
Chlorobenzene	BDL	1.0	ug/l	601/602MS	09/18/02	1
Chlorodibromomethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
Chloroethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601/602MS	09/18/02	1
Chloroform	BDL	1.0	ug/l	601/602MS	09/18/02	1
Chloromethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,2-Dibromoethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/18/02	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,1-Dichloroethane	2.9	1.0	ug/l	601/602MS	09/18/02	1
1,2-Dichloroethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,1-Dichloroethene	1.5	1.0	ug/l	601/602MS	09/18/02	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,2-Dichloropropane	BDL	1.0	ug/l	601/602MS	09/18/02	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601/602MS	09/18/02	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601/602MS	09/18/02	1
Di-isopropyl ether	BDL	5.0	ug/l	601/602MS	09/18/02	1
Ethylbenzene	BDL	1.0	ug/l	601/602MS	09/18/02	1
Methylene chloride	BDL	5.0	ug/l	601/602MS	09/18/02	1
Methyl tert-butyl ether	BDL	5.0	ug/l	601/602MS	09/18/02	1
Naphthalene	BDL	5.0	ug/l	601/602MS	09/18/02	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
Tetrachloroethene	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
Trichloroethene	BDL	1.0	ug/l	601/602MS	09/18/02	1
Trichlorofluoromethane	BDL	1.0	ug/l	601/602MS	09/18/02	1
Toluene	BDL	5.0	ug/l	601/602MS	09/18/02	1
Vinyl chloride	BDL	1.0	ug/l	601/602MS	09/18/02	1
o-Xylene	BDL	1.0	ug/l	601/602MS	09/18/02	1
m&p-Xylene	BDL	2.0	ug/l	601/602MS	09/18/02	1

*Cheli Boucher*  
Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01 KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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Tax I.D. 62-0814289  
Est. 1970

**REPORT OF ANALYSIS**

Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

October 07, 2002

Date Received : September 13, 2002  
Description : Nello Teer  
Sample ID : MW-15  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 10:35

ESC Sample # : L89376-06  
Site ID : 0013-94-012  
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
<b>Volatile Organics</b>						
Benzene	BDL	0.50	ug/l	602MS	09/18/02	1
Toluene	BDL	5.0	ug/l	602MS	09/18/02	1
Ethylbenzene	BDL	0.50	ug/l	602MS	09/18/02	1
Total Xylenes	BDL	1.5	ug/l	602MS	09/18/02	1
Methyl tert-butyl ether	BDL	5.0	ug/l	602MS	09/18/02	1
Di-isopropyl ether	BDL	5.0	ug/l	602MS	09/18/02	1
<b>Surrogate Recovery</b>						
Toluene-d8	100		% Rec.	602MS	09/18/02	1
Dibromofluoromethane	96.		% Rec.	602MS	09/18/02	1
4-Bromofluorobenzene	98.		% Rec.	602MS	09/18/02	1
<b>Polynuclear Aromatic Hydrocarbons</b>						
Extract Date						
Anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Acenaphthene	BDL	1.0	ug/l	610MS	09/17/02	1
Acenaphthylene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(a)anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(a)pyrene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(b)fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(g,h,i)perylene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(k)fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Chrysene	BDL	1.0	ug/l	610MS	09/17/02	1
Dibenz(a,h)anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Fluorene	BDL	1.0	ug/l	610MS	09/17/02	1
Indeno(1,2,3-cd)pyrene	BDL	1.0	ug/l	610MS	09/17/02	1
1-Methylnaphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
2-Methylnaphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
Naphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
Phenanthrene	BDL	1.0	ug/l	610MS	09/17/02	1
Pyrene	BDL	1.0	ug/l	610MS	09/17/02	1

Cheli Boucher  
Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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**REPORT OF ANALYSIS**

Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

October 07, 2002

Date Received : September 13, 2002  
Description : Nello Teer  
Sample ID : MW-17  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 11:45

ESC Sample # : L89376-07  
Site ID : 0013-94-012  
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
<b>Volatile Organics</b>						
Bromodichloromethane	BDL	1.0	ug/l	601MS	09/18/02	1
Bromoform	BDL	1.0	ug/l	601MS	09/18/02	1
Bromomethane	BDL	1.0	ug/l	601MS	09/18/02	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	09/18/02	1
Chlorobenzene	BDL	1.0	ug/l	601MS	09/18/02	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	09/18/02	1
Chloroethane	BDL	1.0	ug/l	601MS	09/18/02	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	09/18/02	1
Chloroform	BDL	1.0	ug/l	601MS	09/18/02	1
Chloromethane	BDL	1.0	ug/l	601MS	09/18/02	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	09/18/02	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	09/18/02	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	09/18/02	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	09/18/02	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	09/18/02	1
1,1-Dichloroethane	BDL	1.0	ug/l	601MS	09/18/02	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	09/18/02	1
1,1-Dichloroethene	BDL	1.0	ug/l	601MS	09/18/02	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	09/18/02	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	09/18/02	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	09/18/02	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	09/18/02	1
Methylene chloride	BDL	5.0	ug/l	601MS	09/18/02	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	09/18/02	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	09/18/02	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601MS	09/18/02	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	09/18/02	1
Trichloroethene	BDL	1.0	ug/l	601MS	09/18/02	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	09/18/02	1
Vinyl chloride	BDL	1.0	ug/l	601MS	09/18/02	1
<b>Polynuclear Aromatic Hydrocarbons</b>						
Extract Date						
Anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Acenaphthene	BDL	1.0	ug/l	610MS	09/17/02	1
Acenaphthylene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(a)anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(a)pyrene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(b)fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01 KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233



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Est. 1970

## REPORT OF ANALYSIS

Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

October 07, 2002

Date Received : September 13, 2002  
Description : Nello Teer  
Sample ID : MW-17  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 11:45

ESC Sample # : L89376-07  
Site ID : 0013-94-012  
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzo(g,h,i)perylene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(k)fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Chrysene	BDL	1.0	ug/l	610MS	09/17/02	1
Dibenz(a,h)anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Fluorene	BDL	1.0	ug/l	610MS	09/17/02	1
Indeno(1,2,3-cd)pyrene	BDL	1.0	ug/l	610MS	09/17/02	1
1-Methylnaphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
2-Methylnaphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
Naphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
Phenanthrene	BDL	1.0	ug/l	610MS	09/17/02	1
Pyrene	BDL	1.0	ug/l	610MS	09/17/02	1

Cheli Boucher  
Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

### Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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**REPORT OF ANALYSIS**

Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

October 07, 2002

Date Received : September 13, 2002  
Description : Nello Teer  
Sample ID : MW-18  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 11:25

ESC Sample # : L89376-08  
Site ID : 0013-94-012  
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
<b>Volatile Organics</b>						
Bromodichloromethane	BDL	1.0	ug/l	601MS	09/19/02	1
Bromoform	BDL	1.0	ug/l	601MS	09/19/02	1
Bromomethane	BDL	1.0	ug/l	601MS	09/19/02	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	09/19/02	1
Chlorobenzene	BDL	1.0	ug/l	601MS	09/19/02	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	09/19/02	1
Chloroethane	BDL	1.0	ug/l	601MS	09/19/02	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	09/19/02	1
Chloroform	BDL	1.0	ug/l	601MS	09/19/02	1
Chloromethane	BDL	1.0	ug/l	601MS	09/19/02	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	09/19/02	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	09/19/02	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	09/19/02	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	09/19/02	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	09/19/02	1
1,1-Dichloroethane	BDL	1.0	ug/l	601MS	09/19/02	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	09/19/02	1
1,1-Dichloroethene	BDL	1.0	ug/l	601MS	09/19/02	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	09/19/02	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	09/19/02	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	09/19/02	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	09/19/02	1
Methylene chloride	BDL	5.0	ug/l	601MS	09/19/02	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	09/19/02	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	09/19/02	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601MS	09/19/02	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	09/19/02	1
Trichloroethene	BDL	1.0	ug/l	601MS	09/19/02	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	09/19/02	1
Vinyl chloride	BDL	1.0	ug/l	601MS	09/19/02	1
<b>Polynuclear Aromatic Hydrocarbons</b>						
Extract Date						
Anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Acenaphthene	BDL	1.0	ug/l	610MS	09/17/02	1
Acenaphthylene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(a)anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(a)pyrene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(b)fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01 KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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REPORT OF ANALYSIS

Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

October 07, 2002

Date Received : September 13, 2002  
Description : Nello Teer  
Sample ID : MW-18  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 11:25

ESC Sample # : L89376-08  
Site ID : 0013-94-012  
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzo(g,h,i)perylene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(k)fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Chrysene	BDL	1.0	ug/l	610MS	09/17/02	1
Dibenz(a,h)anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Fluorene	BDL	1.0	ug/l	610MS	09/17/02	1
Indeno(1,2,3-cd)pyrene	BDL	1.0	ug/l	610MS	09/17/02	1
1-Methylnaphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
2-Methylnaphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
Naphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
Phenanthrene	BDL	1.0	ug/l	610MS	09/17/02	1
Pyrene	BDL	1.0	ug/l	610MS	09/17/02	1

Cheli Boucher  
Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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**REPORT OF ANALYSIS**

Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

October 07, 2002

Date Received : September 13, 2002  
Description : Nello Teer  
Sample ID : MW-23  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 10:00

ESC Sample # : L89376-09  
Site ID : 0013-94-012  
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
<b>Volatile Organics</b>						
Benzene	4.3	1.0	ug/l	601/602MS	09/19/02	1
Bromodichloromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Bromoform	BDL	1.0	ug/l	601/602MS	09/19/02	1
Bromomethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Carbon Tetrachloride	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chlorodibromomethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601/602MS	09/19/02	1
Chloroform	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chloromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dibromoethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,1-Dichloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dichloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,1-Dichloroethene	BDL	1.0	ug/l	601/602MS	09/19/02	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dichloropropane	BDL	1.0	ug/l	601/602MS	09/19/02	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601/602MS	09/19/02	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Di-isopropyl ether	BDL	5.0	ug/l	601/602MS	09/19/02	1
Ethylbenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Methylene chloride	BDL	5.0	ug/l	601/602MS	09/19/02	1
Methyl tert-butyl ether	BDL	5.0	ug/l	601/602MS	09/19/02	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Tetrachloroethene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Trichloroethene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Trichlorofluoromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Toluene	BDL	5.0	ug/l	601/602MS	09/19/02	1
Vinyl chloride	BDL	1.0	ug/l	601/602MS	09/19/02	1
o-Xylene	BDL	1.0	ug/l	601/602MS	09/19/02	1
m&p-Xylene	BDL	2.0	ug/l	601/602MS	09/19/02	1

**Polynuclear Aromatic Hydrocarbons**

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01 KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233



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Est. 1970

**REPORT OF ANALYSIS**

Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

October 07, 2002

Date Received : September 13, 2002

ESC Sample # : L89376-09

Description : Nello Teer

Site ID : 0013-94-012

Sample ID : MW-23

Project # : 0013-94-012

Collected By : Davis / Dwyer

Collection Date : 09/12/02 10:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Extract Date						
Anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Acenaphthene	BDL	1.0	ug/l	610MS	09/17/02	1
Acenaphthylene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(a)anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(a)pyrene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(b)fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(g,h,i)perylene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(k)fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Chrysene	BDL	1.0	ug/l	610MS	09/17/02	1
Dibenz(a,h)anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Fluorene	BDL	1.0	ug/l	610MS	09/17/02	1
Indeno(1,2,3-cd)pyrene	BDL	1.0	ug/l	610MS	09/17/02	1
1-Methylnaphthalene	8.9	1.0	ug/l	610MS	09/17/02	1
2-Methylnaphthalene	3.0	1.0	ug/l	610MS	09/17/02	1
Naphthalene	2.5	1.0	ug/l	610MS	09/17/02	1
Phenanthrene	BDL	1.0	ug/l	610MS	09/17/02	1
Pyrene	BDL	1.0	ug/l	610MS	09/17/02	1

Cheli Boucher  
Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

October 07, 2002

Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

Date Received : September 13, 2002  
Description : Nello Teer  
Sample ID : MW-20D  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 15:02

ESC Sample # : L89376-10

Site ID : 0013-94-012

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Benzene	2.5	1.0	ug/l	601/602MS	09/19/02	1
Bromodichloromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Bromoform	BDL	1.0	ug/l	601/602MS	09/19/02	1
Bromomethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Carbon Tetrachloride	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chlorodibromomethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601/602MS	09/19/02	1
Chloroform	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chloromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dibromoethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,1-Dichloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dichloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,1-Dichloroethene	BDL	1.0	ug/l	601/602MS	09/19/02	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dichloropropane	BDL	1.0	ug/l	601/602MS	09/19/02	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601/602MS	09/19/02	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Di-isopropyl ether	6.1	5.0	ug/l	601/602MS	09/19/02	1
Ethylbenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Methylene chloride	BDL	5.0	ug/l	601/602MS	09/19/02	1
Methyl tert-butyl ether	BDL	5.0	ug/l	601/602MS	09/19/02	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Tetrachloroethene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Trichloroethene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Trichlorofluoromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Toluene	BDL	5.0	ug/l	601/602MS	09/19/02	1
Vinyl chloride	2.8	1.0	ug/l	601/602MS	09/19/02	1
o-Xylene	BDL	1.0	ug/l	601/602MS	09/19/02	1
m&p-Xylene	BDL	2.0	ug/l	601/602MS	09/19/02	1

Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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**REPORT OF ANALYSIS**

October 07, 2002

Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

Date Received : September 13, 2002  
Description : Nello Teer  
Sample ID : MW-20D  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 15:02

ESC Sample # : L89376-10

Site ID : 0013-94-012

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Extract Date						
Anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Acenaphthene	BDL	1.0	ug/l	610MS	09/17/02	1
Acenaphthylene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(a)anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(a)pyrene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(b)fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(g,h,i)perylene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(k)fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Chrysene	BDL	1.0	ug/l	610MS	09/17/02	1
Dibenz(a,h)anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Fluorene	BDL	1.0	ug/l	610MS	09/17/02	1
Indeno(1,2,3-cd)pyrene	BDL	1.0	ug/l	610MS	09/17/02	1
1-Methylnaphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
2-Methylnaphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
Naphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
Phenanthrene	BDL	1.0	ug/l	610MS	09/17/02	1
Pyrene	BDL	1.0	ug/l	610MS	09/17/02	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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*Cheli Boucher*

Cheli Boucher, ESC Representative

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**REPORT OF ANALYSIS**

Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

October 07, 2002

Date Received : September 13, 2002  
Description : Nello Teer  
Sample ID : MW-25  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 12:50

ESC Sample # : L89376-11  
Site ID : 0013-94-012  
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
<b>Volatile Organics</b>						
Benzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Bromodichloromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Bromoform	BDL	1.0	ug/l	601/602MS	09/19/02	1
Bromomethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Carbon Tetrachloride	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chlorodibromomethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chloroethane	4.9	1.0	ug/l	601/602MS	09/19/02	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601/602MS	09/19/02	1
Chloroform	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chloromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dibromoethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,1-Dichloroethane	180	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dichloroethane	2.4	1.0	ug/l	601/602MS	09/19/02	1
1,1-Dichloroethene	220	1.0	ug/l	601/602MS	09/19/02	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dichloropropane	BDL	1.0	ug/l	601/602MS	09/19/02	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601/602MS	09/19/02	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Di-isopropyl ether	BDL	5.0	ug/l	601/602MS	09/19/02	1
Ethylbenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Methylene chloride	BDL	5.0	ug/l	601/602MS	09/19/02	1
Methyl tert-butyl ether	BDL	5.0	ug/l	601/602MS	09/19/02	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Tetrachloroethene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,1,1-Trichloroethane	270	1.0	ug/l	601/602MS	09/19/02	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Trichloroethene	49.	1.0	ug/l	601/602MS	09/19/02	1
Trichlorofluoromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Toluene	BDL	5.0	ug/l	601/602MS	09/19/02	1
Vinyl chloride	24.	1.0	ug/l	601/602MS	09/19/02	1
o-Xylene	BDL	1.0	ug/l	601/602MS	09/19/02	1
m&p-Xylene	BDL	2.0	ug/l	601/602MS	09/19/02	1

**Polynuclear Aromatic Hydrocarbons**

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01 KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233



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REPORT OF ANALYSIS

October 07, 2002

Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

Date Received : September 13, 2002  
Description : Nello Teer  
Sample ID : MW-25  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 12:50

ESC Sample # : L89376-11  
Site ID : 0013-94-012  
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Extract Date						
Anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Acenaphthene	BDL	1.0	ug/l	610MS	09/17/02	1
Acenaphthylene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(a)anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(a)pyrene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(b)fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(g,h,i)perylene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(k)fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Chrysene	BDL	1.0	ug/l	610MS	09/17/02	1
Dibenz(a,h)anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Fluorene	BDL	1.0	ug/l	610MS	09/17/02	1
Indeno(1,2,3-cd)pyrene	BDL	1.0	ug/l	610MS	09/17/02	1
1-Methylnaphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
2-Methylnaphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
Naphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
Phenanthrene	BDL	1.0	ug/l	610MS	09/17/02	1
Pyrene	BDL	1.0	ug/l	610MS	09/17/02	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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Cheli Boucher  
Cheli Boucher, ESC Representative



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REPORT OF ANALYSIS

October 07, 2002

Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

ESC Sample # : L89376-12

Date Received : September 13, 2002  
Description : Neillo Teer  
Sample ID : MW-26  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 11:10

Site ID : 0013-94-012

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Benzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Bromodichloromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Bromoform	BDL	1.0	ug/l	601/602MS	09/19/02	1
Bromomethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Carbon Tetrachloride	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chlorodibromomethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601/602MS	09/19/02	1
Chloroform	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chloromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dibromoethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,1-Dichloroethane	2.8	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dichloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,1-Dichloroethene	1.8	1.0	ug/l	601/602MS	09/19/02	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dichloropropane	BDL	1.0	ug/l	601/602MS	09/19/02	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601/602MS	09/19/02	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Di-isopropyl ether	BDL	5.0	ug/l	601/602MS	09/19/02	1
Ethylbenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Methylene chloride	BDL	5.0	ug/l	601/602MS	09/19/02	1
Methyl tert-butyl ether	BDL	5.0	ug/l	601/602MS	09/19/02	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Tetrachloroethene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Trichloroethene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Trichlorofluoromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Toluene	BDL	5.0	ug/l	601/602MS	09/19/02	1
Vinyl chloride	BDL	1.0	ug/l	601/602MS	09/19/02	1
o-Xylene	BDL	1.0	ug/l	601/602MS	09/19/02	1
m,p-Xylene	BDL	2.0	ug/l	601/602MS	09/19/02	1

Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01 KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

October 07, 2002

Date Received : September 13, 2002  
Description : Nello Teer  
Sample ID : MW-26  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 11:10

ESC Sample # : L89376-12  
Site ID : 0013-94-012  
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Extract Date						
Anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Acenaphthene	BDL	1.0	ug/l	610MS	09/17/02	1
Acenaphthylene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(a)anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(a)pyrene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(b)fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(g,h,i)perylene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(k)fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Chrysene	BDL	1.0	ug/l	610MS	09/17/02	1
Dibenz(a,h)anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Fluorene	BDL	1.0	ug/l	610MS	09/17/02	1
Indeno(1,2,3-cd)pyrene	BDL	1.0	ug/l	610MS	09/17/02	1
1-Methylnaphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
2-Methylnaphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
Naphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
Phenanthrene	BDL	1.0	ug/l	610MS	09/17/02	1
Pyrene	BDL	1.0	ug/l	610MS	09/17/02	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40650, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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*Cheli Boucher*

Cheli Boucher, ESC Representative



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

October 07, 2002

Date Received : September 13, 2002  
Description : Nello Teer  
Sample ID : RW-3  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 14:50

ESC Sample # : L89376-13  
Site ID : 0013-94-012  
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Benzene	BDL	1.0	ug/l	601/602MS	09/20/02	1
Bromodichloromethane	BDL	1.0	ug/l	601/602MS	09/20/02	1
Bromoform	BDL	1.0	ug/l	601/602MS	09/20/02	1
Bromomethane	BDL	1.0	ug/l	601/602MS	09/20/02	1
Carbon Tetrachloride	BDL	1.0	ug/l	601/602MS	09/20/02	1
Chlorobenzene	BDL	1.0	ug/l	601/602MS	09/20/02	1
Chlorodibromomethane	BDL	1.0	ug/l	601/602MS	09/20/02	1
Chloroethane	BDL	1.0	ug/l	601/602MS	09/20/02	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601/602MS	09/20/02	1
Chloroform	BDL	1.0	ug/l	601/602MS	09/20/02	1
Chloromethane	BDL	1.0	ug/l	601/602MS	09/20/02	1
1,2-Dibromoethane	BDL	1.0	ug/l	601/602MS	09/20/02	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/20/02	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/20/02	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/20/02	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601/602MS	09/20/02	1
1,1-Dichloroethane	BDL	1.0	ug/l	601/602MS	09/20/02	1
1,2-Dichloroethane	BDL	1.0	ug/l	601/602MS	09/20/02	1
1,1-Dichloroethene	BDL	1.0	ug/l	601/602MS	09/20/02	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601/602MS	09/20/02	1
1,2-Dichloropropane	BDL	1.0	ug/l	601/602MS	09/20/02	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601/602MS	09/20/02	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601/602MS	09/20/02	1
Di-isopropyl ether	BDL	5.0	ug/l	601/602MS	09/20/02	1
Ethylbenzene	BDL	1.0	ug/l	601/602MS	09/20/02	1
Methylene chloride	BDL	5.0	ug/l	601/602MS	09/20/02	1
Methyl tert-butyl ether	BDL	5.0	ug/l	601/602MS	09/20/02	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601/602MS	09/20/02	1
Tetrachloroethene	BDL	1.0	ug/l	601/602MS	09/20/02	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601/602MS	09/20/02	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601/602MS	09/20/02	1
Trichloroethene	BDL	1.0	ug/l	601/602MS	09/20/02	1
Trichlorofluoromethane	BDL	1.0	ug/l	601/602MS	09/20/02	1
Toluene	BDL	5.0	ug/l	601/602MS	09/20/02	1
Vinyl chloride	BDL	1.0	ug/l	601/602MS	09/20/02	1
o-Xylene	BDL	1.0	ug/l	601/602MS	09/20/02	1
m&p-Xylene	BDL	2.0	ug/l	601/602MS	09/20/02	1

Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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Est. 1970

**REPORT OF ANALYSIS**

Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

October 07, 2002

Date Received : September 13, 2002  
Description : Nello Teer  
Sample ID : RW-3  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 14:50

ESC Sample # : L89376-13  
Site ID : 0013-94-012  
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Extract Date						
Anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Acenaphthene	BDL	1.0	ug/l	610MS	09/17/02	1
Acenaphthylene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(a)anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(a)pyrene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(b)fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(g,h,i)perylene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(k)fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Chrysene	BDL	1.0	ug/l	610MS	09/17/02	1
Dibenz(a,h)anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Fluorene	12.	1.0	ug/l	610MS	09/17/02	1
Indeno(1,2,3-cd)pyrene	BDL	1.0	ug/l	610MS	09/17/02	1
1-Methylnaphthalene	43.	1.0	ug/l	610MS	09/17/02	1
2-Methylnaphthalene	9.9	1.0	ug/l	610MS	09/17/02	1
Naphthalene	6.5	1.0	ug/l	610MS	09/17/02	1
Phenanthrene	24.	1.0	ug/l	610MS	09/17/02	1
Pyrene	4.4	1.0	ug/l	610MS	09/17/02	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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*Cheli Boucher*  
Cheli Boucher, ESC Representative



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REPORT OF ANALYSIS

October 07, 2002

Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

Date Received : September 13, 2002  
Description : Nello Teer  
Sample ID : RW-4  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 15:00

ESC Sample # : L89376-14  
Site ID : 0013-94-012  
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Benzene	BDL	1.0	ug/l	601/602MS	09/20/02	1
Bromodichloromethane	BDL	1.0	ug/l	601/602MS	09/20/02	1
Bromoform	BDL	1.0	ug/l	601/602MS	09/20/02	1
Bromomethane	BDL	1.0	ug/l	601/602MS	09/20/02	1
Carbon Tetrachloride	BDL	1.0	ug/l	601/602MS	09/20/02	1
Chlorobenzene	BDL	1.0	ug/l	601/602MS	09/20/02	1
Chlorodibromomethane	BDL	1.0	ug/l	601/602MS	09/20/02	1
Chloroethane	BDL	1.0	ug/l	601/602MS	09/20/02	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601/602MS	09/20/02	1
Chloroform	BDL	1.0	ug/l	601/602MS	09/20/02	1
Chloromethane	BDL	1.0	ug/l	601/602MS	09/20/02	1
1,2-Dibromoethane	BDL	1.0	ug/l	601/602MS	09/20/02	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/20/02	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/20/02	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/20/02	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601/602MS	09/20/02	1
1,1-Dichloroethane	4.0	1.0	ug/l	601/602MS	09/20/02	1
1,2-Dichloroethane	BDL	1.0	ug/l	601/602MS	09/20/02	1
1,1-Dichloroethene	BDL	1.0	ug/l	601/602MS	09/20/02	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601/602MS	09/20/02	1
1,2-Dichloropropane	BDL	1.0	ug/l	601/602MS	09/20/02	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601/602MS	09/20/02	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601/602MS	09/20/02	1
Di-isopropyl ether	BDL	5.0	ug/l	601/602MS	09/20/02	1
Ethylbenzene	BDL	1.0	ug/l	601/602MS	09/20/02	1
Methylene chloride	BDL	5.0	ug/l	601/602MS	09/20/02	1
Methyl tert-butyl ether	BDL	5.0	ug/l	601/602MS	09/20/02	1
Naphthalene	BDL	5.0	ug/l	601/602MS	09/20/02	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601/602MS	09/20/02	1
Tetrachloroethene	BDL	1.0	ug/l	601/602MS	09/20/02	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601/602MS	09/20/02	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601/602MS	09/20/02	1
Trichloroethene	BDL	1.0	ug/l	601/602MS	09/20/02	1
Trichlorofluoromethane	BDL	1.0	ug/l	601/602MS	09/20/02	1
Toluene	BDL	5.0	ug/l	601/602MS	09/20/02	1
Vinyl chloride	BDL	1.0	ug/l	601/602MS	09/20/02	1
o-Xylene	BDL	1.0	ug/l	601/602MS	09/20/02	1
m&p-Xylene	BDL	2.0	ug/l	601/602MS	09/20/02	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01 KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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Cheli Boucher  
Cheli Boucher, ESC Representative

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

October 07, 2002

Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

Date Received : September 13, 2002  
Description : Nello Teer  
Sample ID : RW-5  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 14:25

ESC Sample # : L89376-15  
Site ID : 0013-94-012  
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
<b>Volatile Organics</b>						
Bromodichloromethane	BDL	1.0	ug/l	601MS	09/19/02	1
Bromoform	BDL	1.0	ug/l	601MS	09/19/02	1
Bromomethane	BDL	1.0	ug/l	601MS	09/19/02	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	09/19/02	1
Chlorobenzene	BDL	1.0	ug/l	601MS	09/19/02	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	09/19/02	1
Chloroethane	4.4	1.0	ug/l	601MS	09/19/02	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	09/19/02	1
Chloroform	BDL	1.0	ug/l	601MS	09/19/02	1
Chloromethane	BDL	1.0	ug/l	601MS	09/19/02	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	09/19/02	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	09/19/02	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	09/19/02	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	09/19/02	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	09/19/02	1
1,1-Dichloroethane	150	1.0	ug/l	601MS	09/19/02	1
1,2-Dichloroethane	1.6	1.0	ug/l	601MS	09/19/02	1
1,1-Dichloroethene	170	1.0	ug/l	601MS	09/19/02	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	09/19/02	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	09/19/02	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	09/19/02	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	09/19/02	1
Methylene chloride	BDL	5.0	ug/l	601MS	09/19/02	1
Naphthalene	BDL	5.0	ug/l	601MS	09/19/02	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	09/19/02	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	09/19/02	1
1,1,1-Trichloroethane	250	1.0	ug/l	601MS	09/19/02	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	09/19/02	1
Trichloroethene	39.	1.0	ug/l	601MS	09/19/02	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	09/19/02	1
Vinyl chloride	27.	1.0	ug/l	601MS	09/19/02	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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Cheli Boucher, ESC Representative



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**REPORT OF ANALYSIS**

Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

October 07, 2002

Date Received : September 13, 2002  
Description : Nello Teer  
Sample ID : RW-7  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 14:05

ESC Sample # : L89376-16  
Site ID : 0013-94-012  
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
<b>Volatile Organics</b>						
Bromodichloromethane	BDL	1.0	ug/l	601MS	09/20/02	1
Bromoform	BDL	1.0	ug/l	601MS	09/20/02	1
Bromomethane	BDL	1.0	ug/l	601MS	09/20/02	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	09/20/02	1
Chlorobenzene	BDL	1.0	ug/l	601MS	09/20/02	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	09/20/02	1
Chloroethane	BDL	1.0	ug/l	601MS	09/20/02	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	09/20/02	1
Chloroform	BDL	1.0	ug/l	601MS	09/20/02	1
Chloromethane	BDL	1.0	ug/l	601MS	09/20/02	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	09/20/02	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	09/20/02	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	09/20/02	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	09/20/02	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	09/20/02	1
1,1-Dichloroethane	3.1	1.0	ug/l	601MS	09/20/02	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	09/20/02	1
1,1-Dichloroethene	BDL	1.0	ug/l	601MS	09/20/02	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	09/20/02	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	09/20/02	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	09/20/02	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	09/20/02	1
Methylene chloride	BDL	5.0	ug/l	601MS	09/20/02	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	09/20/02	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	09/20/02	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601MS	09/20/02	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	09/20/02	1
Trichloroethene	BDL	1.0	ug/l	601MS	09/20/02	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	09/20/02	1
Vinyl chloride	BDL	1.0	ug/l	601MS	09/20/02	1
<b>Polynuclear Aromatic Hydrocarbons</b>						
Extract Date						
Anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Acenaphthene	BDL	1.0	ug/l	610MS	09/17/02	1
Acenaphthylene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(a)anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(a)pyrene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(b)fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01 KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

October 07, 2002

Date Received : September 13, 2002  
Description : Nello Teer  
Sample ID : RW-7  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 14:05

ESC Sample # : L89376-16  
Site ID : 0013-94-012  
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzo(g,h,i)perylene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(k)fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Chrysene	BDL	1.0	ug/l	610MS	09/17/02	1
Dibenz(a,h)anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Fluorene	BDL	1.0	ug/l	610MS	09/17/02	1
Indeno(1,2,3-cd)pyrene	BDL	1.0	ug/l	610MS	09/17/02	1
1-Methylnaphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
2-Methylnaphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
Naphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
Phenanthrene	BDL	1.0	ug/l	610MS	09/17/02	1
Pyrene	BDL	1.0	ug/l	610MS	09/17/02	1

*Cheli Boucher*  
Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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Quantum Environmental Inc.  
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Raleigh, NC 27607

October 07, 2002

Date Received : September 13, 2002  
Description : Nello Teer  
Sample ID : RW-8  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 16:00

ESC Sample # : L89376-17  
Site ID : 0013-94-012  
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
<b>Volatile Organics</b>						
Benzene	BDL	0.50	ug/l	602MS	09/19/02	1
Toluene	BDL	5.0	ug/l	602MS	09/19/02	1
Ethylbenzene	BDL	0.50	ug/l	602MS	09/19/02	1
Total Xylenes	BDL	1.5	ug/l	602MS	09/19/02	1
Methyl tert-butyl ether	BDL	5.0	ug/l	602MS	09/19/02	1
Di-isopropyl ether	8.8	5.0	ug/l	602MS	09/19/02	1
<b>Surrogate Recovery</b>						
Toluene-d8	100		% Rec.	602MS	09/19/02	1
Dibromofluoromethane	110		% Rec.	602MS	09/19/02	1
4-Bromofluorobenzene	95.		% Rec.	602MS	09/19/02	1
<b>Polynuclear Aromatic Hydrocarbons</b>						
Extract Date						
Anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Acenaphthene	BDL	1.0	ug/l	610MS	09/17/02	1
Acenaphthylene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(a)anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(a)pyrene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(b)fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(g,h,i)perylene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(k)fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Chrysene	BDL	1.0	ug/l	610MS	09/17/02	1
Dibenz(a,h)anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Fluorene	BDL	1.0	ug/l	610MS	09/17/02	1
Indeno(1,2,3-cd)pyrene	BDL	1.0	ug/l	610MS	09/17/02	1
1-Methylnaphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
2-Methylnaphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
Naphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
Phenanthrene	BDL	1.0	ug/l	610MS	09/17/02	1
Pyrene	BDL	1.0	ug/l	610MS	09/17/02	1

*Cheli Boucher*  
Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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REPORT OF ANALYSIS

October 07, 2002

Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

Date Received : September 13, 2002  
Description : Nello Teer  
Sample ID : RW-9  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 14:40

ESC Sample # : L89376-18  
Site ID : 0013-94-012  
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
<b>Volatile Organics</b>						
Benzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Bromodichloromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Bromoform	BDL	1.0	ug/l	601/602MS	09/19/02	1
Bromomethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Carbon Tetrachloride	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chlorodibromomethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601/602MS	09/19/02	1
Chloroform	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chloromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dibromoethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,1-Dichloroethane	120	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dichloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,1-Dichloroethene	81.	1.0	ug/l	601/602MS	09/19/02	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dichloropropane	BDL	1.0	ug/l	601/602MS	09/19/02	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601/602MS	09/19/02	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Di-isopropyl ether	BDL	5.0	ug/l	601/602MS	09/19/02	1
Ethylbenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Methylene chloride	BDL	5.0	ug/l	601/602MS	09/19/02	1
Methyl tert-butyl ether	BDL	5.0	ug/l	601/602MS	09/19/02	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Tetrachloroethene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,1,1-Trichloroethane	27.	1.0	ug/l	601/602MS	09/19/02	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Trichloroethene	12.	1.0	ug/l	601/602MS	09/19/02	1
Trichlorofluoromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Toluene	BDL	5.0	ug/l	601/602MS	09/19/02	1
Vinyl chloride	8.2	1.0	ug/l	601/602MS	09/19/02	1
o-Xylene	BDL	1.0	ug/l	601/602MS	09/19/02	1
m&p-Xylene	BDL	2.0	ug/l	601/602MS	09/19/02	1

**Polynuclear Aromatic Hydrocarbons**

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
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Mr. Tom Davis  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

October 07, 2002

Date Received : September 13, 2002  
Description : Nello Teer  
Sample ID : RW-9  
Collected By : Davis / Dwyer  
Collection Date : 09/12/02 14:40

ESC Sample # : L89376-18  
Site ID : 0013-94-012  
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Extract Date						
Anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Acenaphthene	BDL	1.0	ug/l	610MS	09/17/02	1
Acenaphthylene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(a)anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(a)pyrene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(b)fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(g,h,i)perylene	BDL	1.0	ug/l	610MS	09/17/02	1
Benzo(k)fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Chrysene	BDL	1.0	ug/l	610MS	09/17/02	1
Dibenz(a,h)anthracene	BDL	1.0	ug/l	610MS	09/17/02	1
Fluoranthene	BDL	1.0	ug/l	610MS	09/17/02	1
Fluorene	BDL	1.0	ug/l	610MS	09/17/02	1
Indeno(1,2,3-cd)pyrene	BDL	1.0	ug/l	610MS	09/17/02	1
1-Methylnaphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
2-Methylnaphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
Naphthalene	BDL	1.0	ug/l	610MS	09/17/02	1
Phenanthrene	BDL	1.0	ug/l	610MS	09/17/02	1
Pyrene	BDL	1.0	ug/l	610MS	09/17/02	1

Cheli Boucher  
Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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Attachment A  
List of Analytes with QC Qualifiers

Sample #	Analyte	Qualifier
L89376-01	Benzene	H
	Bromodichloromethane	H
	Bromoform	H
	Bromomethane	H
	Carbon Tetrachloride	H
	Chlorobenzene	H
	Chlorodibromomethane	H
	Chloroethane	H
	2-Chloroethyl vinyl ether	H
	Chloroform	H
	Chloromethane	H
	1,2-Dibromoethane	H
	1,2-Dichlorobenzene	H
	1,3-Dichlorobenzene	H
	1,4-Dichlorobenzene	H
	Dichlorodifluoromethane	H
	1,1-Dichloroethane	H
	1,2-Dichloroethane	H
	1,1-Dichloroethene	H
	trans-1,2-Dichloroethene	H
	1,2-Dichloropropane	H
	cis-1,3-Dichloropropene	H
	trans-1,3-Dichloropropene	H
	Di-isopropyl ether	H
	Ethylbenzene	H
	Methylene chloride	H
	Methyl tert-butyl ether	H
	Naphthalene	H
	1,1,2,2-Tetrachloroethane	H
	Tetrachloroethene	H
	1,1,1-Trichloroethane	H
	1,1,2-Trichloroethane	H
	Trichloroethene	H
	Trichlorofluoromethane	H
	Toluene	H
	Vinyl chloride	H
	o-Xylene	H
	m&p-Xylene	H
L89376-02	2-Chloroethyl vinyl ether	J4
L89376-03	2-Chloroethyl vinyl ether	J4
L89376-04	2-Chloroethyl vinyl ether	J4
L89376-05	2-Chloroethyl vinyl ether	J4
L89376-06	Anthracene	J3
	Acenaphthene	J3
	Acenaphthylene	J3
	Benzo(a)anthracene	J3
	Benzo(a)pyrene	J3
	Benzo(b)fluoranthene	J3
	Benzo(g,h,i)perylene	J3
	Benzo(k)fluoranthene	J3
	Chrysene	J3
	Dibenz(a,h)anthracene	J3
	Fluoranthene	J3
	Indeno(1,2,3-cd)pyrene	J3
	1-Methylnaphthalene	J3
	2-Methylnaphthalene	J3
	Naphthalene	J3
	Phenanthrene	J3
	Pyrene	J3
L89376-07	2-Chloroethyl vinyl ether	J4
	Anthracene	J3
	Acenaphthene	J3
	Acenaphthylene	J3
	Benzo(a)anthracene	J3
	Benzo(a)pyrene	J3
	Benzo(b)fluoranthene	J3
	Benzo(g,h,i)perylene	J3
	Benzo(k)fluoranthene	J3
	Chrysene	J3

Attachment A  
List of Analytes with QC Qualifiers

Sample #	Analyte	Qualifier
L89376-08	Dibenz(a,h)anthracene	J3
	Fluoranthene	J3
	Indeno(1,2,3-cd)pyrene	J3
	1-Methylnaphthalene	J3
	2-Methylnaphthalene	J3
	Naphthalene	J3
	Phenanthrene	J3
	Pyrene	J3
	2-Chloroethyl vinyl ether	J4
	Dichlorodifluoromethane	J3
	Anthracene	J3
	Acenaphthene	J3
	Acenaphthylene	J3
	Benzo(a)anthracene	J3
	Benzo(a)pyrene	J3
	Benzo(b)fluoranthene	J3
	Benzo(g,h,i)perylene	J3
	Benzo(k)fluoranthene	J3
	Chrysene	J3
	Dibenz(a,h)anthracene	J3
	Fluoranthene	J3
	Indeno(1,2,3-cd)pyrene	J3
	1-Methylnaphthalene	J3
	2-Methylnaphthalene	J3
	Naphthalene	J3
	Phenanthrene	J3
	Pyrene	J3
L89376-09	2-Chloroethyl vinyl ether	J4
	Dichlorodifluoromethane	J3
	Anthracene	J3
	Acenaphthene	J3
	Acenaphthylene	J3
	Benzo(a)anthracene	J3
	Benzo(a)pyrene	J3
	Benzo(b)fluoranthene	J3
	Benzo(g,h,i)perylene	J3
	Benzo(k)fluoranthene	J3
	Chrysene	J3
	Dibenz(a,h)anthracene	J3
	Fluoranthene	J3
	Indeno(1,2,3-cd)pyrene	J3
	1-Methylnaphthalene	J3
	2-Methylnaphthalene	J3
	Naphthalene	J3
	Phenanthrene	J3
	Pyrene	J3
	2-Chloroethyl vinyl ether	J4
	Dichlorodifluoromethane	J3
	Anthracene	J3
	Acenaphthene	J3
	Acenaphthylene	J3
L89376-10	Benzo(a)anthracene	J3
	Benzo(a)pyrene	J3
	Benzo(b)fluoranthene	J3
	Benzo(g,h,i)perylene	J3
	Benzo(k)fluoranthene	J3
	Chrysene	J3
	Dibenz(a,h)anthracene	J3
	Fluoranthene	J3
	Indeno(1,2,3-cd)pyrene	J3
	1-Methylnaphthalene	J3
	2-Methylnaphthalene	J3
	Naphthalene	J3
	Phenanthrene	J3
	Pyrene	J3
	2-Chloroethyl vinyl ether	J4
	Dichlorodifluoromethane	J3
	Anthracene	J3
	Acenaphthene	J3
	Acenaphthylene	J3
	Benzo(a)anthracene	J3
	Benzo(a)pyrene	J3
	Benzo(b)fluoranthene	J3
	Benzo(g,h,i)perylene	J3
	Benzo(k)fluoranthene	J3
	Chrysene	J3
	Dibenz(a,h)anthracene	J3
	Fluoranthene	J3
L89376-11	Indeno(1,2,3-cd)pyrene	J3
	1-Methylnaphthalene	J3
	2-Methylnaphthalene	J3
	Naphthalene	J3
	Phenanthrene	J3
	Pyrene	J3
L89376-11	Anthracene	J3
	Acenaphthene	J3
	Acenaphthylene	J3
	Benzo(a)anthracene	J3
	Benzo(a)pyrene	J3

Attachment A  
List of Analytes with QC Qualifiers

Sample #	Analyte	Qualifier
L89376-12	Benzo(b)fluoranthene	J3
	Benzo(g,h,i)perylene	J3
	Benzo(k)fluoranthene	J3
	Chrysene	J3
	Dibenz(a,h)anthracene	J3
	Fluoranthene	J3
	Indeno(1,2,3-cd)pyrene	J3
	1-Methylnaphthalene	J3
	2-Methylnaphthalene	J3
	Naphthalene	J3
	Phenanthrene	J3
	Pyrene	J3
	Benzene	H
	Bromodichloromethane	H
	Bromoform	H
	Bromomethane	H
	Carbon Tetrachloride	H
	Chlorobenzene	H
	Chlorodibromomethane	H
	Chloroethane	H
	2-Chloroethyl vinyl ether	H
	Chloroform	H
	Chloromethane	H
	1,2-Dibromoethane	H
	1,2-Dichlorobenzene	H
	1,3-Dichlorobenzene	H
	1,4-Dichlorobenzene	H
	Dichlorodifluoromethane	H
	1,1-Dichloroethane	H
	1,2-Dichloroethane	H
	1,1-Dichloroethene	H
	trans-1,2-Dichloroethene	H
	1,2-Dichloropropane	H
	cis-1,3-Dichloropropene	H
	trans-1,3-Dichloropropene	H
	Di-isopropyl ether	H
	Ethylbenzene	H
	Methylene chloride	H
	Methyl tert-butyl ether	H
	1,1,2,2-Tetrachloroethane	H
	Tetrachloroethene	H
	1,1,1-Trichloroethane	H
	1,1,2-Trichloroethane	H
	Trichloroethene	H
	Trichlorofluoromethane	H
L89376-13	Toluene	H
	Vinyl chloride	H
	o-Xylene	H
	m&p-Xylene	H
	Anthracene	J3
	Acenaphthene	J3
	Acenaphthylene	J3
	Benzo(a)anthracene	J3
	Benzo(a)pyrene	J3
	Benzo(b)fluoranthene	J3
	Benzo(g,h,i)perylene	J3
	Benzo(k)fluoranthene	J3
	Chrysene	J3
	Dibenz(a,h)anthracene	J3
	Fluoranthene	J3
	Indeno(1,2,3-cd)pyrene	J3
	1-Methylnaphthalene	J3
	2-Methylnaphthalene	J3
	Naphthalene	J3
	Phenanthrene	J3
	Pyrene	J3
	Benzene	H
	Bromodichloromethane	H
	Bromoform	H
	Bromomethane	H

Attachment A  
List of Analytes with QC Qualifiers

Sample #	Analyte	Qualifier
L89376-14	Carbon Tetrachloride	H
	Chlorobenzene	H
	Chlorodibromomethane	H
	Chloroethane	H
	2-Chloroethyl vinyl ether	H
	Chloroform	H
	Chloromethane	H
	1,2-Dibromoethane	H
	1,2-Dichlorobenzene	H
	1,3-Dichlorobenzene	H
	1,4-Dichlorobenzene	H
	Dichlorodifluoromethane	H
	1,1-Dichloroethane	H
	1,2-Dichloroethane	H
	1,1-Dichloroethene	H
	trans-1,2-Dichloroethene	H
	1,2-Dichloropropane	H
	cis-1,3-Dichloropropene	H
	trans-1,3-Dichloropropene	H
	Di-isopropyl ether	H
	Ethylbenzene	H
	Methylene chloride	H
	Methyl tert-butyl ether	H
	1,1,2,2-Tetrachloroethane	H
	Tetrachloroethene	H
	1,1,1-Trichloroethane	H
	1,1,2-Trichloroethane	H
	Trichloroethene	H
	Trichlorofluoromethane	H
	Toluene	H
	Vinyl chloride	H
	o-Xylene	H
	m&p-Xylene	H
	Anthracene	J3
	Acenaphthene	J3
	Acenaphthylene	J3
	Benzo(a)anthracene	J3
	Benzo(a)pyrene	J3
	Benzo(b)fluoranthene	J3
	Benzo(g,h,i)perylene	J3
	Benzo(k)fluoranthene	J3
	Chrysene	J3
	Dibenz(a,h)anthracene	J3
	Fluoranthene	J3
	Indeno(1,2,3-cd)pyrene	J3
	1-Methylnaphthalene	J3
	2-Methylnaphthalene	J3
	Naphthalene	J3
	Phenanthrene	J3
	Pyrene	J3
	Benzene	H
	Bromodichloromethane	H
	Bromoform	H
	Bromomethane	H
	Carbon Tetrachloride	H
	Chlorobenzene	H
	Chlorodibromomethane	H
	Chloroethane	H
	2-Chloroethyl vinyl ether	H
	Chloroform	H
	Chloromethane	H
	1,2-Dibromoethane	H
	1,2-Dichlorobenzene	H
	1,3-Dichlorobenzene	H
	1,4-Dichlorobenzene	H
	Dichlorodifluoromethane	H
	1,1-Dichloroethane	H
	1,2-Dichloroethane	H
	1,1-Dichloroethene	H
	trans-1,2-Dichloroethene	H

Attachment A  
List of Analytes with QC Qualifiers

Sample #	Analyte	Qualifier
L89376-15	1,2-Dichloropropane	H
	cis-1,3-Dichloropropene	H
	trans-1,3-Dichloropropene	H
	Di-isopropyl ether	H
	Ethylbenzene	H
	Methylene chloride	H
	Methyl tert-butyl ether	H
	Naphthalene	H
	1,1,2,2-Tetrachloroethane	H
	Tetrachloroethene	H
	1,1,1-Trichloroethane	H
	1,1,2-Trichloroethane	H
	Trichloroethene	H
	Trichlorofluoromethane	H
	Toluene	H
	Vinyl chloride	H
	o-Xylene	H
	m&p-Xylene	H
	2-Chloroethyl vinyl ether	J4
	Dichlorodifluoromethane	J3
	1,1-Dichloroethane	E
	1,1-Dichloroethene	E
	1,1,1-Trichloroethane	E
L89376-16	Bromodichloromethane	H
	Bromoform	H
	Bromomethane	H
	Carbon Tetrachloride	H
	Chlorobenzene	H
	Chlorodibromomethane	H
	Chloroethane	H
	2-Chloroethyl vinyl ether	HJ6
	Chloroform	H
	Chloromethane	H
	1,2-Dibromoethane	H
	1,2-Dichlorobenzene	H
	1,3-Dichlorobenzene	H
	1,4-Dichlorobenzene	H
	Dichlorodifluoromethane	H
	1,1-Dichloroethane	H
	1,2-Dichloroethane	H
	1,1-Dichloroethene	H
	trans-1,2-Dichloroethene	H
	1,2-Dichloropropane	H
	cis-1,3-Dichloropropene	H
	trans-1,3-Dichloropropene	H
	Methylene chloride	H
	1,1,2,2-Tetrachloroethane	H
	Tetrachloroethene	H
	1,1,1-Trichloroethane	H
	1,1,2-Trichloroethane	H
	Trichloroethene	H
	Trichlorofluoromethane	H
	Vinyl chloride	H
	Anthracene	J3
	Acenaphthene	J3
	Acenaphthylene	J3
	Benzo (a) anthracene	J3
	Benzo (a) pyrene	J3
	Benzo (b) fluoranthene	J3
	Benzo (g,h,i) perylene	J3
	Benzo (k) fluoranthene	J3
	Chrysene	J3
	Dibenz (a,h) anthracene	J3
	Fluoranthene	J3
	Indeno(1,2,3-cd)pyrene	J3
	1-Methylnaphthalene	J3
	2-Methylnaphthalene	J3
	Naphthalene	J3
	Phenanthrene	J3
	Pyrene	J3

Attachment A  
List of Analytes with QC Qualifiers

Sample #	Analyte	Qualifier
L89376-17	Anthracene	J3
	Acenaphthene	J3
	Acenaphthylene	J3
	Benzo(a)anthracene	J3
	Benzo(a)pyrene	J3
	Benzo(b)fluoranthene	J3
	Benzo(g,h,i)perylene	J3
	Benzo(k)fluoranthene	J3
	Chrysene	J3
	Dibenz(a,h)anthracene	J3
	Fluoranthene	J3
	Indeno(1,2,3-cd)pyrene	J3
	1-Methylnaphthalene	J3
	2-Methylnaphthalene	J3
	Naphthalene	J3
	Phenanthrene	J3
	Pyrene	J3
L89376-18	2-Chloroethyl vinyl ether	J4
	Dichlorodifluoromethane	J3
	1,1-Dichloroethane	E
	1,1-Dichloroethene	E
	Pyrene	J4

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
E	GTL (EPA) - Greater than upper calibration limit: Actual value is known to be greater than the upper calibration range.
H	RIN(EPA)-Re-Analyzed: The indicated analytical results were generated from a reinjection of the same sample extract or aliquot.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is unacceptably low
J3	The associated batch QC did not successfully meet the established quality control criteria for precision.
J4	The associated batch QC did not successfully meet the established quality control criteria for accuracy.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable unless qualified as 'R' (Rejected).

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

# Quantum Environmental Inc.

6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

Alternate billing information:

Analysis/Container/Preservative

Chain of Custody  
Page 1 of 3

Report to:  
**Mr. Michael Dwyer**

Email:  
**mdwyer@QUANTUMCOs.c**

Project Description: **Nello Teer**

City/State Collected  
*NC*

Phone: (919) 852-3595  
FAX: (919) 852-1997

Client Project #:  
**0013-94-012**

Lab Project #

**OUANTUM-001394012**

Collected by (print):

*Tom Davis, Mike Dwyer*

Site/Facility ID#:  
**0013-94-012**

P.O.#:

Collected by (signature):

*AD*

Rush? (Lab MUST Be Notified)

Same Day ..... 200%  
Next Day ..... 100%  
Two Day ..... 50%

Date Results Needed

Email? No  Yes  
FAX? No  Yes

Packed on Ice N

Sample ID

Comp/Grab

Matrix\*

Depth

Date

Time

No. of Cntrs

*SE*

SV601

40ml

Amb-HCl

V601

40ml

Amb-HCl

V602

40ml

Amb-HCl

*MW-1*

*G*

**GW**

*9/12/02 12:10*

2

*MW-7*

*G*

**GW**

*11:25*

2

*MW-9*

*G*

**GW**

*10:10*

2

*MW-11*

*G*

**GW**

*10:45*

2

*MW-13*

*G*

**GW**

*13:50*

2

*MW-15*

*G*

**GW**

*11:45*

2

*MW-17*

*G*

**GW**

*11:45*

2

*MW-18*

*G*

**GW**

*11:25*

2

*MW-23*

*G*

**GW**

*10:00*

2

\*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

pH \_\_\_\_\_ Temp \_\_\_\_\_

Remarks:

Flow \_\_\_\_\_ Other \_\_\_\_\_

Relinquished by: (Signature)	Date: <i>9/12/02</i>	Time: <i>1723</i>	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier	Condition: (lab-use only)
Relinquished by: (Signature)	Date: _____	Time: _____	Received by: (Signature)	Temp: <i>20</i> Bottles Received: <i>47</i>	Other: <i>HTB</i>
Relinquished by: (Signature)	Date: _____	Time: _____	Received for lab by: (Signature)	Date: <i>9/13/02</i>	Time: <i>09:45</i>

*✓*

pH Checked:  NCF:

Quantum Environmental Inc. 6001 Chapel Hill Road. Suite 108 Raleigh, NC 27607		Alternate billing information:		Analysis/Container/Preservative		Chain of Custody Page <u>2</u> of <u>3</u>
Report to: <b>Mr. Michael Dwyer</b>		Email: <b>mdwyer@QUANTUMCOs.com</b>				Prepared by: <b>ENVIRONMENTAL SCIENCE CORP.</b> 12065 Lebanon Road Mt. Juliet, TN 37122 Phone (800) 767-5859 FAX (615) 758-5859
Project Description: Nello Teer		City/State Collected <i>NC</i>				
Phone: (919) 852-3595 FAX: (919) 852-1997	Client Project #: <b>0013-94-012</b>	Lab Project # <b>OUANTUM-001394012</b>				
Collected by (print): <i>DAVIS DWYER</i>	Site/Facility ID#: <b>0013-94-012</b>	P.O.#:				
Collected by (signature): <i>DAVIS DWYER</i>	Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day ..... 200% <input type="checkbox"/> Next Day ..... 100% <input type="checkbox"/> Two Day ..... 50%	Date Results Needed Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	No. of Cntrs <i>JE</i>	SV610 1L-Amb-NoPres V601 40mlAmb-HCl V601 602 40mlAmb-HCl V602 40mlAmb-HCl		CoCode: <b>OUANTUM</b> (lab use only) Template/Prelogin <b>T15971/P65397</b> Cooler # Shipped Via: <b>FedEX Ground</b>
Packed on Ice N <input checked="" type="checkbox"/> Y	Sample ID	Comp/Grab	Matrix*	Depth	Date Time	Remarks/Contaminant Sample # (lab only)
MW - 20	G	GW		1	9/12/02 1502 23 X X	189376-10
MW - 25		GW		1	1250 13 X X	11
MW - 26		GW			1110 23 X X	12
RW - 1		GW			20 X X	No sample
RW - 3		GW			1450 23 X X	13
RW - 4		GW			1500 2 X X	14
RW - 5		GW			1425 2 X X	15
RW - 7		GW		1	1405 23 X X	16
RW - 8		GW		1	1600 23 X X	17

\*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other \_\_\_\_\_

Remarks: \*One liter Amber received broken.

pH \_\_\_\_\_ Temp \_\_\_\_\_

Flow \_\_\_\_\_ Other \_\_\_\_\_

Relinquished by: (Signature) <i>MIC</i>	Date: <b>9/12/02 1723</b>	Time: _____	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier	Condition: <b>(lab use only)</b> <i>OKP</i>
Relinquished by: (Signature)	Date: _____	Time: _____	Received by: (Signature)	Temp: _____ Bottles Received: <b>2C 47/48B</b>	
Relinquished by: (Signature)	Date: _____	Time: _____	Received for lab by: (Signature) <i>Jessica Sims</i>	Date: <b>9/13/02 09:45</b>	pH Checked: <input checked="" type="checkbox"/> NCF: <input checked="" type="checkbox"/>

# Quantum Environmental Inc.

6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

Report to:  
**Mr. Michael Dwyer**

Alternate billing information:

Project Description: **Nello Teer**

City/State Collected

Phone: (919) 852-3595  
FAX: (919) 852-1997

Client Project #:  
**0013-94-012**

Lab Project #  
**OUANTUM-001394012**

Collected by (print):  
**T. Dwyer, M. Dwyer**

Site/Facility ID#:  
**0013-94-012**

P.O.#:

Collected by (signature):  
**M. Dwyer**

Rush? (Lab MUST Be Notified)

Same Day ..... 200%  
 Next Day ..... 100%  
 Two Day ..... 50%

Date Results Needed

Email?  No  Yes  
FAX?  No  Yes

Packed on Ice N **(Y)**

Sample ID

Comp/Grab

Matrix\*

Depth

Date

Time

**RW - 9**

**G**

**GW**

**/**

**9/12/02 1440**

**13**

**X**

**L893618**

**GW**

**G**

**GW**

**/**

**9/12/02 1440**

**2**

**X**

**L893618**

**GW**

**G**

**GW**

**/**

**9/12/02 1440**

**2**

**X**

**L893618**

**GW**

**G**

**GW**

**/**

**9/12/02 1440**

**2**

**X**

**L893618**

**GW**

**G**

**GW**

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**9/12/02 1440**

**2**

**X**

**L893618**

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**9/12/02 1440**

**2**

**X**

**L893618**

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**9/12/02 1440**

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**L893618**

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**9/12/02 1440**

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**X**

**L893618**

**GW**

**G**

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**9/12/02 1440**

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**X**

**L893618**

**GW**

**G**

**GW**

**/**

**9/12/02 1440**

**2**

**X**

**L893618**

**GW**

**G**

**GW**

**/**

**9/12/02 1440**

**2**

**X**

**X**

**X**

**X**

**X**

**X**

**X**

# ENVIRONMENTAL SCIENCE CORP.

## SAMPLE NON-CONFORMANCE FORM

Sample No. : L89376

Date : 9-13-02

Evaluated by: Jasen

Client: QUANTUM

Non-Conformance (check applicable items)

Parameter(s) past holding

- Improper container type / Bottle broken and/or cap not in tact  
 Chain of custody is incomplete / missing  
 Improper temperature/preservation  
 Login Clarification Needed

Comments:

RW-5= One Liter Amber received broken.

RW-4= Didn't receive one liter amber.

Login Instructions:

TSR Initials: Cb

Client informed by call / letter / fax date: 9/13/02 time: 1410

Client contact: Mike Dwyer

Comments:

RW-4 : Disregard SV610 on this sample

RW-5 : Client to resample and send in by Weds  
of next week (9/18/02). Log around for now.



ENVIRONMENTAL  
SCIENCE CORP.

12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

September 23, 2002

Mr. Michael Dwyer  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

Date Received : September 18, 2002  
Description : Nello Teer  
Sample ID : RW-5  
Collected By : Tom Davis  
Collection Date : 09/17/02 10:03

ESC Sample # : L89793-01

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
<b>Polynuclear Aromatic Hydrocarbons</b>						
Extraction Date	09/19/02					
Anthracene	BDL	0.0020	mg/l	610MS	09/20/02	1
Acenaphthene	BDL	0.0020	mg/l	610MS	09/20/02	1
Acenaphthylene	BDL	0.0020	mg/l	610MS	09/20/02	1
Benzo(a)anthracene	BDL	0.0020	mg/l	610MS	09/20/02	1
Benzo(a)pyrene	BDL	0.0020	mg/l	610MS	09/20/02	1
Benzo(b)fluoranthene	BDL	0.0020	mg/l	610MS	09/20/02	1
Benzo(g,h,i)perylene	BDL	0.0020	mg/l	610MS	09/20/02	1
Benzo(k)fluoranthene	BDL	0.0020	mg/l	610MS	09/20/02	1
Chrysene	BDL	0.0020	mg/l	610MS	09/20/02	1
Dibenz(a,h)anthracene	BDL	0.0020	mg/l	610MS	09/20/02	1
Fluoranthene	BDL	0.0020	mg/l	610MS	09/20/02	1
Fluorene	BDL	0.0020	mg/l	610MS	09/20/02	1
Indeno(1,2,3-cd)pyrene	BDL	0.0020	mg/l	610MS	09/20/02	1
Naphthalene	BDL	0.0020	mg/l	610MS	09/20/02	1
Phenanthrene	BDL	0.0020	mg/l	610MS	09/20/02	1
Pyrene	BDL	0.0020	mg/l	610MS	09/20/02	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

The reported analytical results relate only to the sample submitted.  
This report shall not be reproduced, except in full, without the written approval from ESC.

*Cheli Boucher*  
Cheli Boucher, ESC Representative

Attachment A  
List of Analytes with QC Qualifiers

Sample #	Analyte	Qualifier
L89793-01	Anthracene	J4
	Acenaphthene	J4
	Acenaphthylene	J4
	Benzo (a)anthracene	J4
	Benzo (a)pyrene	J4
	Benzo (b)fluoranthene	J4
	Benzo (g,h,i)perylene	J4
	Benzo (k)fluoranthene	J4
	Chrysene	J4
	Dibenz (a,h)anthracene	J4
	Fluoranthene	J4
	Fluorene	J4
	Indeno (1, 2, 3-cd)pyrene	J4
	Naphthalene	J4
	Phenanthrene	J4
	Pyrene	J4

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
J4	The associated batch QC did not successfully meet the established quality control criteria for accuracy.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable unless qualified as 'R' (Rejected).

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.



# ENVIRONMENTAL SCIENCE CORP.

## SAMPLE NON-CONFORMANCE FORM

Sample No. : 189793

Date : 9/18/02

Evaluated by: Jonah

Client: Quantum Environmental

Non-Conformance (check applicable items)

Parameter(s) past holding

- Improper container type / Bottle broken and/or cap not in tact  
 Chain of custody is incomplete / missing  
 Improper temperature/preservation  
 Login Clarification Needed

Comments:

Client sent 2 500 mL Amber for SV610, but one was received broken.

Login Instructions:

TSR Initials: \_\_\_\_\_

\_\_\_\_\_ Client informed by call / letter / fax date: \_\_\_\_\_ time: \_\_\_\_\_

Client contact: \_\_\_\_\_

Comments:

Run w/elevated detection limits



ENVIRONMENTAL  
SCIENCE CORP.

12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
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1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

September 23, 2002

Mr. Michael Dwyer  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

Date Received : September 14, 2002  
Description : Nello Teer

ESC Sample # : L89441-01

Sample ID : RW-2

Site ID :

Collected By : Davis/Dwyer  
Collection Date : 09/13/02 09:25

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
<b>Volatile Organics</b>						
Benzene	BDL	1.0	ug/l	602MS	09/19/02	1
Toluene	BDL	5.0	ug/l	602MS	09/19/02	1
Ethylbenzene	BDL	1.0	ug/l	602MS	09/19/02	1
Total Xylenes	BDL	3.0	ug/l	602MS	09/19/02	1
Methyl tert-butyl ether	BDL	5.0	ug/l	602MS	09/19/02	1
Di-isopropyl ether	BDL	5.0	ug/l	602MS	09/19/02	1
Naphthalene	BDL	5.0	ug/l	602MS	09/19/02	1
<b>Surrogate Recovery</b>						
Toluene-d8	100		% Rec.	602MS	09/19/02	1
Dibromofluoromethane	100		% Rec.	602MS	09/19/02	1
4-Bromofluorobenzene	94.		% Rec.	602MS	09/19/02	1
<b>Polynuclear Aromatic Hydrocarbons</b>						
Extraction Date	09/18/02					
Anthracene	BDL	2.0	ug/l	610MS	09/20/02	2
Acenaphthene	BDL	2.0	ug/l	610MS	09/20/02	2
Acenaphthylene	BDL	2.0	ug/l	610MS	09/20/02	2
Benzo(a)anthracene	BDL	2.0	ug/l	610MS	09/20/02	2
Benzo(a)pyrene	BDL	2.0	ug/l	610MS	09/20/02	2
Benzo(b)fluoranthene	BDL	2.0	ug/l	610MS	09/20/02	2
Benzo(g,h,i)perylene	BDL	2.0	ug/l	610MS	09/20/02	2
Benzo(k)fluoranthene	BDL	2.0	ug/l	610MS	09/20/02	2
Chrysene	BDL	2.0	ug/l	610MS	09/20/02	2
Dibenz(a,h)anthracene	BDL	2.0	ug/l	610MS	09/20/02	2
Fluoranthene	BDL	2.0	ug/l	610MS	09/20/02	2
Fluorene	BDL	2.0	ug/l	610MS	09/20/02	2
Indeno(1,2,3-cd)pyrene	BDL	2.0	ug/l	610MS	09/20/02	2
Naphthalene	BDL	2.0	ug/l	610MS	09/20/02	2
Phenanthrene	BDL	2.0	ug/l	610MS	09/20/02	2
Pyrene	BDL	2.0	ug/l	610MS	09/20/02	2

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Cheli Boucher

Cheli Boucher, ESC Representative

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01  
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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**ENVIRONMENTAL  
SCIENCE CORP.**

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Tax I.D. 62-0814289

Est. 1970

**REPORT OF ANALYSIS**

September 23, 2002

Mr. Michael Dwyer  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

Date Received : September 14, 2002  
Description : Nello Teer

ESC Sample # : L89441-02

Sample ID : RW-1

Site ID :

Collected By : Davis/Dwyer  
Collection Date : 09/13/02 14:50

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
<b>Volatile Organics</b>						
Benzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Bromodichloromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Bromoform	BDL	1.0	ug/l	601/602MS	09/19/02	1
Bromomethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Carbon Tetrachloride	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chlorodibromomethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601/602MS	09/19/02	1
Chloroform	BDL	1.0	ug/l	601/602MS	09/19/02	1
Chloromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dibromoethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,1-Dichloroethane	3.4	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dichloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,1-Dichloroethene	2.0	1.0	ug/l	601/602MS	09/19/02	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,2-Dichloropropane	BDL	1.0	ug/l	601/602MS	09/19/02	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601/602MS	09/19/02	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Di-isopropyl ether	BDL	5.0	ug/l	601/602MS	09/19/02	1
Ethylbenzene	BDL	1.0	ug/l	601/602MS	09/19/02	1
Methylene chloride	BDL	5.0	ug/l	601/602MS	09/19/02	1
Methyl tert-butyl ether	BDL	5.0	ug/l	601/602MS	09/19/02	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Tetrachloroethene	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Trichloroethene	4.0	1.0	ug/l	601/602MS	09/19/02	1
Trichlorofluoromethane	BDL	1.0	ug/l	601/602MS	09/19/02	1
Toluene	BDL	5.0	ug/l	601/602MS	09/19/02	1
Vinyl chloride	BDL	1.0	ug/l	601/602MS	09/19/02	1
o-Xylene	BDL	1.0	ug/l	601/602MS	09/19/02	1
m&p-Xylene	BDL	2.0	ug/l	601/602MS	09/19/02	1

**Polynuclear Aromatic Hydrocarbons**

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

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Mr. Michael Dwyer  
Quantum Environmental Inc.  
6001 Chapel Hill Road, Suite 108  
Raleigh, NC 27607

REPORT OF ANALYSIS

September 23, 2002

Date Received : September 14, 2002  
Description : Nello Teer  
Sample ID : RW-1  
Collected By : Davis/Dwyer  
Collection Date : 09/13/02 14:50

ESC Sample # : L89441-02

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Extraction Date	09/18/02					
Anthracene	BDL	2.0	ug/l	610MS	09/20/02	2
Acenaphthene	BDL	2.0	ug/l	610MS	09/20/02	2
Acenaphthylene	BDL	2.0	ug/l	610MS	09/20/02	2
Benzo(a)anthracene	BDL	2.0	ug/l	610MS	09/20/02	2
Benzo(a)pyrene	BDL	2.0	ug/l	610MS	09/20/02	2
Benzo(b)fluoranthene	BDL	2.0	ug/l	610MS	09/20/02	2
Benzo(g,h,i)perylene	BDL	2.0	ug/l	610MS	09/20/02	2
Benzo(k)fluoranthene	BDL	2.0	ug/l	610MS	09/20/02	2
Chrysene	BDL	2.0	ug/l	610MS	09/20/02	2
Dibenz(a,h)anthracene	BDL	2.0	ug/l	610MS	09/20/02	2
Fluoranthene	BDL	2.0	ug/l	610MS	09/20/02	2
Fluorene	BDL	2.0	ug/l	610MS	09/20/02	2
Indeno(1,2,3-cd)pyrene	BDL	2.0	ug/l	610MS	09/20/02	2
Naphthalene	BDL	2.0	ug/l	610MS	09/20/02	2
Phenanthrene	BDL	2.0	ug/l	610MS	09/20/02	2
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Note:

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Cheli Boucher

Cheli Boucher, ESC Representative

Attachment A  
List of Analytes with QC Qualifiers

Sample #	Analyte	Qualifier
L89441-01	Acenaphthene	J3J4
	Acenaphthylene	J3J4
	Naphthalene	J3J4
L89441-02	Acenaphthene	J3J4
	Acenaphthylene	J3J4
	Naphthalene	J3J4

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
J4	The associated batch QC did not successfully meet the established quality control criteria for accuracy.
J3	The associated batch QC did not successfully meet the established quality control criteria for precision.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable unless qualified as 'R' (Rejected).

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.



Cheli

## ENVIRONMENTAL SCIENCE CORP.

### SAMPLE NON-CONFORMANCE FORM

Sample No. : L89441 <sup>(P)</sup>

Date : 9/14/02

Evaluated by: Lacy

Client: QUANTUM

Non-Conformance (check applicable items)

- Parameter(s) past holding  
 Improper container type / Bottle broken and/or cap not in tact  
 Chain of custody is incomplete / missing  
 Improper temperature/preservation  
 Login Clarification Needed

Comments:

Rec'd 2 500mL Ambers for each set. Each set also had 1 500mL Amber rec'd broken. Will this be a sufficient amount of sample for SV610 having only 1 500mL for each?

Login Instructions:

TSR Initials: Cb

Client informed by call letter / fax date: 9/16/02 time: 9:36

Client contact: Mike Dwyer

Comments:

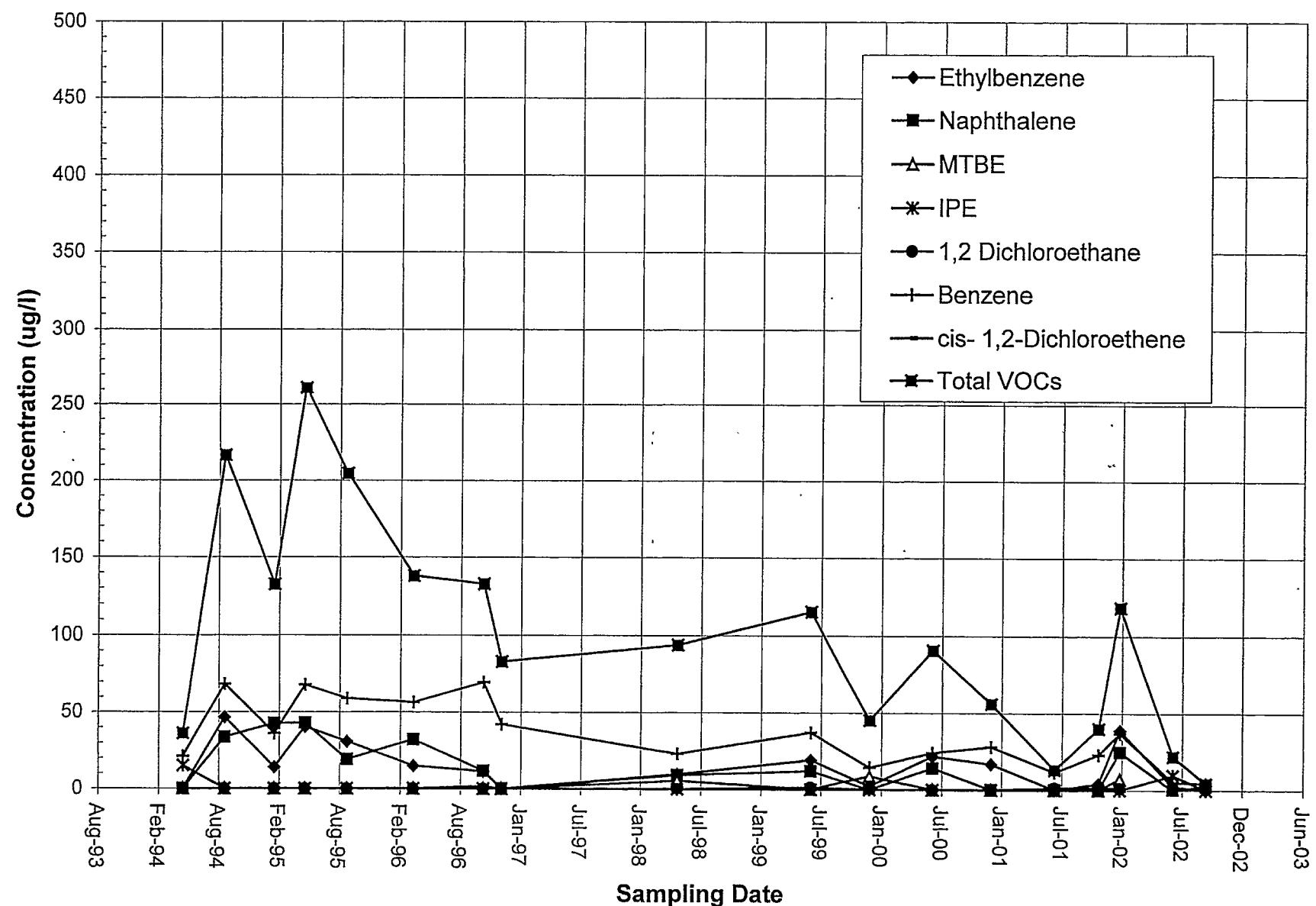
Run w/elevated detection limits

## Appendix B

**Appendix B**

**Charts for Groundwater Concentrations  
Versus Time for MW-23 and MW-25**

## MW-23 Historic Groundwater Monitoring Results.



## MW-25 Historic Groundwater Monitoring Results.

